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CASTLE®
TOTAL SECURITY SOLUTION

[TOTAL SECURITY SOLUTION]

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Contents

Plugs Into a New Era of Technology

As the leading building security solutions provider, we offer cutting edged software and hardware technologies, including fingerprints, smart cards and internet technology.

We have successfully installed our systems in many leading commercial and industrial buildings around the region. Our demand customers depend on our integrated building access control systems to manage and monitor their critical facilities.

Contact us today and discover how our commitment and professional services can assist your organization to accelerate to a new height.

Standalone Door Access (Castle-Knight)

Features

- 12 keys polycarbonate keypad
- 3 LEDs for Valid, Error and Ready status indication
- One relay output for door lock system
- Door sensor input and door release button
- 16 Characters x 2 rows liquid crystal display
- Door force open or door left open trigger reader buzzer
- Adjustable buzzer volume
- User definable 6 digits Master PIN for entering Programming Mode
- User definable door open time and lock release time
- User changeable card PIN (4 digits PIN)
- 2 sets PIN number for door PIN Access (4 digits PIN)
- Keypad lockout after 5 invalid PIN violation for 25 seconds (Applicable for CAS-SKA only)

Technical Specifications

Models / Specifications	KSP-NDT, KSP-NDH KSP-MSN	KSP-992, CAS-SKA
Operating frequency	8.00 Mhz	4.00Mhz
Operating temperature	0 - 65 C	0 - 65 C
Input	12 - 13.8Vdc	12 - 13.8Vdc
MCU	MC68HC908GP32	MC68HC705C8A
EEPROM	64 kbits	64 kbits 4 kbits (CAS-SKA)
Card reading distance maximum	75 - 110mm	30 - 75mm
Physical dimension	171H X 165W X 37D mm	KSP 992 - 166H X 128W X 30D mm CAS-SKA - 133H X 90W X 30D mm
Weight	0.6kg	KSP-992 - 1kg CAS-SKA - 0.7kg

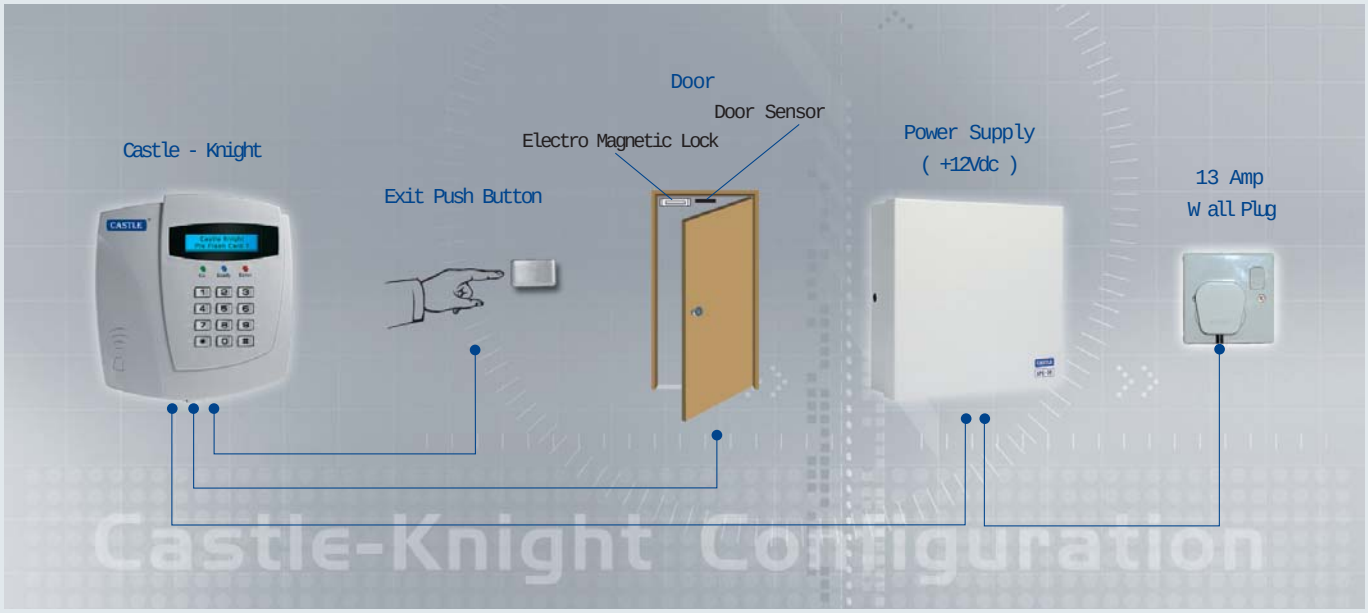
Ordering Information

Stock Code	Description
KSP-NDT	Proximity reader with 992 users c/w ABS casing (Format : Magnetic)
KSP-NDH	Proximity reader with 992 users c/w ABS casing (Format : Wiegand-26 bits)
KSP-MSN	Contact-less smartcard reader (Mifare Card Serial Number) with 992 users c/w ABS casing
CR100	External alarm relay board-dry contact (Optional accessories for alarm features)

Stock Code	Description
KSP-992	Proximity reader with 992 users and alarm feature c/w metal casing (Format : Magnetic)

Stock Code	Description
CAS-SKA	32 PIN code access and alarm feature c/w metal casing

System Configuration



(All the model above required power supply for operation. 230 - 240Vac, 50Hz input - 12Vdc, 3A output)

Networking Door Access (S-Series)

Technical Specifications

Controller Models	S-Series - 2/4/8 doors per controller (CAS-2S/4S/8S) Advanced - Series -12/16 doors per controller (CAS-12S/16S)
Microprocessor Model	Motorola 68HC11 M C U
Operating Frequency	S-Series: 8 MHz Advanced-Series: 12 MHz
Clock System	Real-Time
EPROM / Flash	S-Series 64K Bytes / 128K Bytes Advanced-Series 128K Bytes
R A M	S-Series: 128K Bytes Advanced-Series: 1M Bytes
W atchdog	1 Internal and 1 External
Battery Back-Up for Memory	3.6V onboard rechargeable backup battery
Type of Storage System Used	Static RAM
Operating Temperature Range	0-65"C
Baud Rate	9600 (Controller to reader) 2400 (PC to controller)
Stop Bits	1
Data Bits	8
Maximum Storage Capability	S-Series: 5,000 cards user and 2,500 transactions Advanced-Series : 5,000 cards user and 50,000 transactions
Input Voltage	12V DC
Input Voltage Tolerance	11V-13.8V DC
Rated Current Input	1A
Number of Controllers Can Be Connected	16 or 32 Controllers (Depends on software version)
Number of Readers Can Be Connected	S-Series: 4/8/16 readers (Depends on Controller Types) Advanced-Series: 24/32 readers (Depends on Controller Types)
Type of Reader Technology	-Contact-less Smart Card - Wiegand 26 bits / Magnetic Signal -Magnetic Stripe Track 2, ABA Format -Barcode 2/5 or 3/9 format
Type of Usage	Stand-Alone (Reader to Controller) Network-Operated (Reader to Controller to PC)
Communication Cable Used	1 Pair RS-485 from Reader to Controller for each bus 1 Pair RS-485 from Controller to PCI-Interface
Maximum Length of Communication	1 km (Cable Length)
Recommended Cable Type	BELDEN Cable 24AWG Standard 1419 A
Housing	Metal Casing with Tubular Cam Lock and coated with epoxy to prevent vandalism
Alarm Features	S-Series: 4 digital inputs points & 1 relay output Advanced-Series: 7 inputs point & 1 fire alarm Alarm Arming/Disarming can be manually controlled or timer controlled
Timer	S-Series: 100 Timer Sets with 3 Intervals Advanced-Series: 256 Timer Sets with 3 Intervals
Time Zone	S-Series: 100 user Time Zone (9 days/time zone) Advanced-Series: 256 user Time Zone (9 days/time zone)
Support Multi-Door and Anti-Pass Back	Function available for S-Series and Advanced-Series
Holidays	2 types of 30 dates Progammable Holiday
Controller Programming Mode Security	3 Passwords: (no access card needed) *Technical Password - Diagnostics only * User Password - Arming & Disarming only * Master Password - Highest Privilege
Continuous Card Swiping Facility When Door Is Open	Function Available
Controller Display Unit	20 characters x 2 rows Liquid Crystal Display with back-light
Software Requirements (Recommended Configurations)	Run on Window 95/98/NT/Millenium Edition or Compatible Pentium II, 64MB RAM, 10GB Hard Disk and Display 800 x 600 resolution
Diagnostic Systems	Built-In Diagnostics
Indications	Sound Indication When Release Button Is Pushed, Door Left Open And Force Open
Programming Mode	Menu Driven Programming & Software Programming
Log File Supporting Through Software	Function Available
Auxiliary Relay Output	20 Type Programmable Event (Applicable for K-Series & Advanced-Series Only)
Interlocking Capability	Function Available Between Any Pair of Door (Applicable for N-Series Only)

Model / Features	Control up to	Card Strorage	Events transaction	Time sets (3 intervasl each)	TimeZone (7 days+2 holidays / time zone)	User accessibility
CENTURION						
CAS-1S	1 door	2,500	2,500	50	50	50
S-SERIES						
CAS-2S / 4S / 8S	2/4/8 doors	5000	2,500	100	100	100
ADVANCED-SERIES						
CAS-12S	12 doors	5,000	50,000	256	256	256
CAS-16S	16 doors	5,000	50,000	256	256	256

Ordering Information

Controller

(S-Series)

Dimensions :
248H x 185W x 42D mm

Stock code	Description
CAS-2S	2-doors controller
CAS-4S	4-doors controller
CAS-8S	8-doors controller

(Advanced Series)

Dimensions :
310H x 220W x 55D mm

Stock code	Description
CAS-12S	12-doors controller
CAS-16S	16-doors controller

Reader

Dimensions :
170H x 185W x 35D mm

Stock code	Description
PRO-NDT	Proximity reader c/w 12 keys polycarbonate key-pad reader interface unit & ABS casing with blue LCD (Format : Magnetic Signal)
PRO-NDH	HID proximity reader c/w 12 keys polycarbonate keypad, reader interface unit ABS casing with blue LCD. (Format : Wiegand 26 bits)
CAS-MSN26	Contact-less smart card reader (Mifare Card Serial Number) c/w 12 keys polycarbonate key-pad, reader interface unit & ABS casing with blue LCD (Format : Wiegand 26 bits)
PRO-4SM-T	Proximity reader c/w 12 keys polycarbonate key-pad, reader interface unit & metal casing.(Format : Magnetic Signal)

Recommended Accessories

Stock code	Description
CPC30	3A / 13.8Vdc power supply unit with battery charger
CLP-22-2W	RS485 lightning / surge arrestor (2 wires)
600LB	12Vdc, 600lbs electric magnetic lock
Bat7	7AH sealed lead acid rechargeable battery
Communication Cable	Belden 1419

For a full accomplishment of CE marking for door access system, the recommended accessories on the above item need to be included.

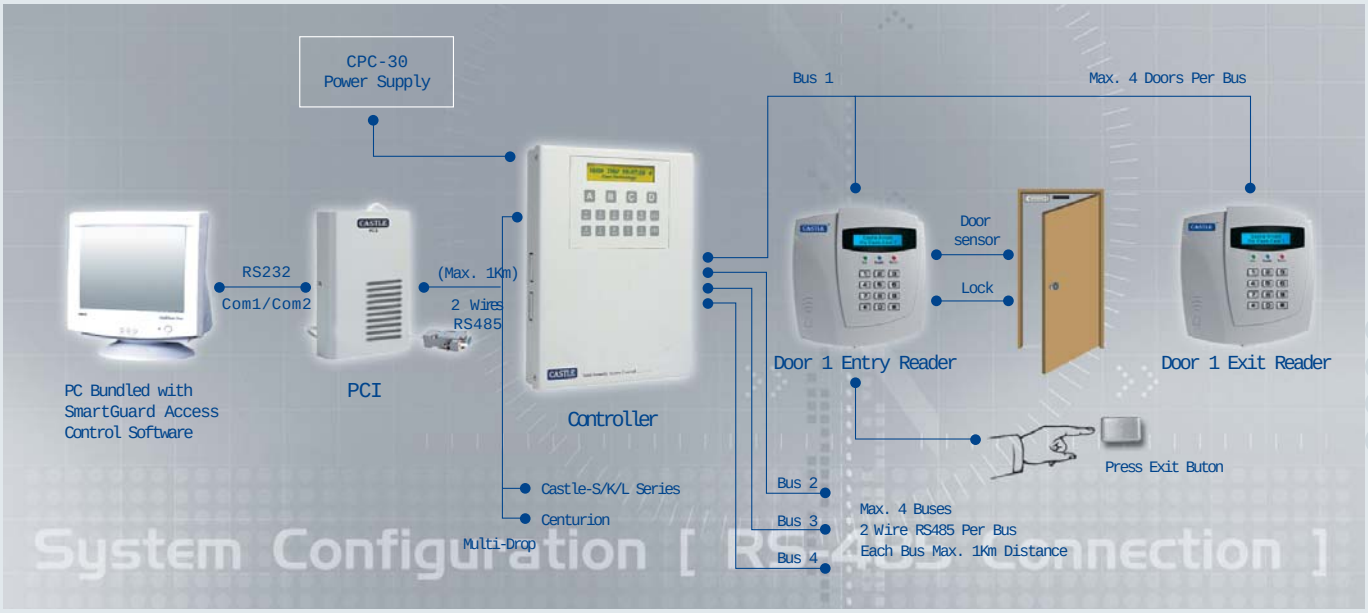
SmartGuard Series Software

Dimensions :
150H x 90W x 25D mm

Stock code	Description
PCI-1/2	Smart Guard Standard software c/w PC-interface unit. - 1/16 controller version. - Able to manage door / car park access.
PCI-PRO	Smart Guard Pro software c/w PC-interface unit. - 1 Bus 16 controllers version. - Support fingerprint controller. - Able to manage door / lift / car park access.
PCI-PRORM	Multiple site remote monitoring software c/w PC-interface unit. - 1 Bus 16 controllers version. - Support fingerprint controller. - Able to manage door / lift / car park access.
PCI-RMAGN	- Remote program data collector. (Remote Agent)
CV2588	- RS 485 to LAN converter. (UTP Ethernet 10 Base T with TCP/IP protocol)
CAS-OEM	Software development kit to communicate with Castle S-Series Controller. (CASWIN-OEM)
PCI-C/S-1A	Smart Guard Client-Server software c/w PC-interface unit. - 1 Bus 16 controllers version. - Able to manage door / lift / car park access.
PCI-C/S-2A	Smart Guard Client-Server software c/w PC-interface unit. - 2 Bus 32 controllers version - Able to manage door / lift / car park access.
PCI-C/S-RM1A	Smart Guard Client-Server remote software c/w PC-interface unit. (Multiple site remote monitoring) - 1 Bus 16 controllers version - Able to manage door / lift / car park access.

SmartGuard series software runs on : Win 95, NT, 98, 98(SE), ME, 2000 Professional

System Configuration [RS-485 Connection]



SmartGuard Series Softwares

Features

The CASTLE SmartGuard series of PC based access control system management software are specially designed for ease of use by all levels of user. It is a powerful security access management software system with multi-user and multi terminal networking capabilities. They are all menu driven and graphical software where ordinary PC user s can use them with minimum supervision.

Easy to setup and use.

SmartGuard is easy to setup and use . Basically, a standard Celeron 466MHz PC with 32MB RAM and 20 MB free hard disk space for program files and one free serial comm port to link up to the controllers. This is a very standard PC specifications that makes the source and maintenance of the PC hardware just a very minor problem.

Dynamic Floor Plan

The software is capable of displaying the layout of the site. Each device installed in the site is represented by a corresponding icon on the floor plan layout in SmartGuard. User can click on the icon to perform command on to the device. The icon will also blinks or changes colors when certain events occurs on the corresponding device. Software users can Add/Change Floor Plan Layout Setting themselves. They can easily reposition a device simply by drag-and-drop of the corresponding icons. The floor plan layout configuration systems is included in the SmartGuard as standard feature.

Built-In Time Attendance Listing Generation

SmartGuard comes with a time attendance report generation sub-system as standard feature. Since the access system has already recorded all the movement of the staff, SmartGuard make use of this information to produce the time attendance report without additional cost. It is capable of listing staff daily absenteeism, late-in, late-out, early-in, early-out, total worked hour and total OT hours.

SmartGuard Pro and above has an enhanced time attendance report generation engine. It is capable of allowing attendance record editing and generate monthly attendance report. It is also capable of generating time attendance listing based on Flexi-Hour setting. Staff leave dates can be keyed in to the system so that the attendance listing becomes more meaningful when staff in on leave.

Acts as access system transaction server for 3rd party integration

SmartGuard comes with an access system transaction server sub-system for 3rd party integration. Programmmers can write software to request for the latest transaction either from the same PC or a remote PC from SmartGuard in order to perform their own special task. This is implemented through Winsock inter-process communication. The SmartGuard acts as a Socket Server to listen and reply to the request of the 3rd party clients. SmartGuard will keep the latest 200 transactions in memory for transactions server.

Menu Command Accessibility Control

Accessibility to the menu commands can be controlled. You can assign proper menu command accessibility to the software operators in order to maintain your system integrity

System Personalization

Company name and logo can be printed on the report in the software to personalize the report output. In addition, user database allows 2 user definable field to cope with the personalized needs of different company.

Industrial Database Format makes it easy to integrate

SmartGuard Standard / Pro is using Dbase file format for data storage. It is an industrial-graded well-known database format. This makes it easy to be integrated other software systems since data can be exported out easily.Networking version of SmartGuard usee SQL based database server for data storage (such as MS-SQL)

MODELS AVAILABLE:

- SMARTGUARD STANDARD
- SMARTGUARD PRO
- SMARTGUARD PRO-REMOTE / SMARTGUARD AGENT
- SMARTGUARD CLIENT - SERVER

SmartGuard Standard comes with the entire standard feature which is sufficient for managing CASTLE access control systems and built-in simple daily Time Attendance reporting.

SmartGuard Pro comes with all the features found in SmartGuard Standard version plus many enhanced features such as enhanced time attendance for record editing and monthly attendance report generation, personalization and manages lift access controller and many more.

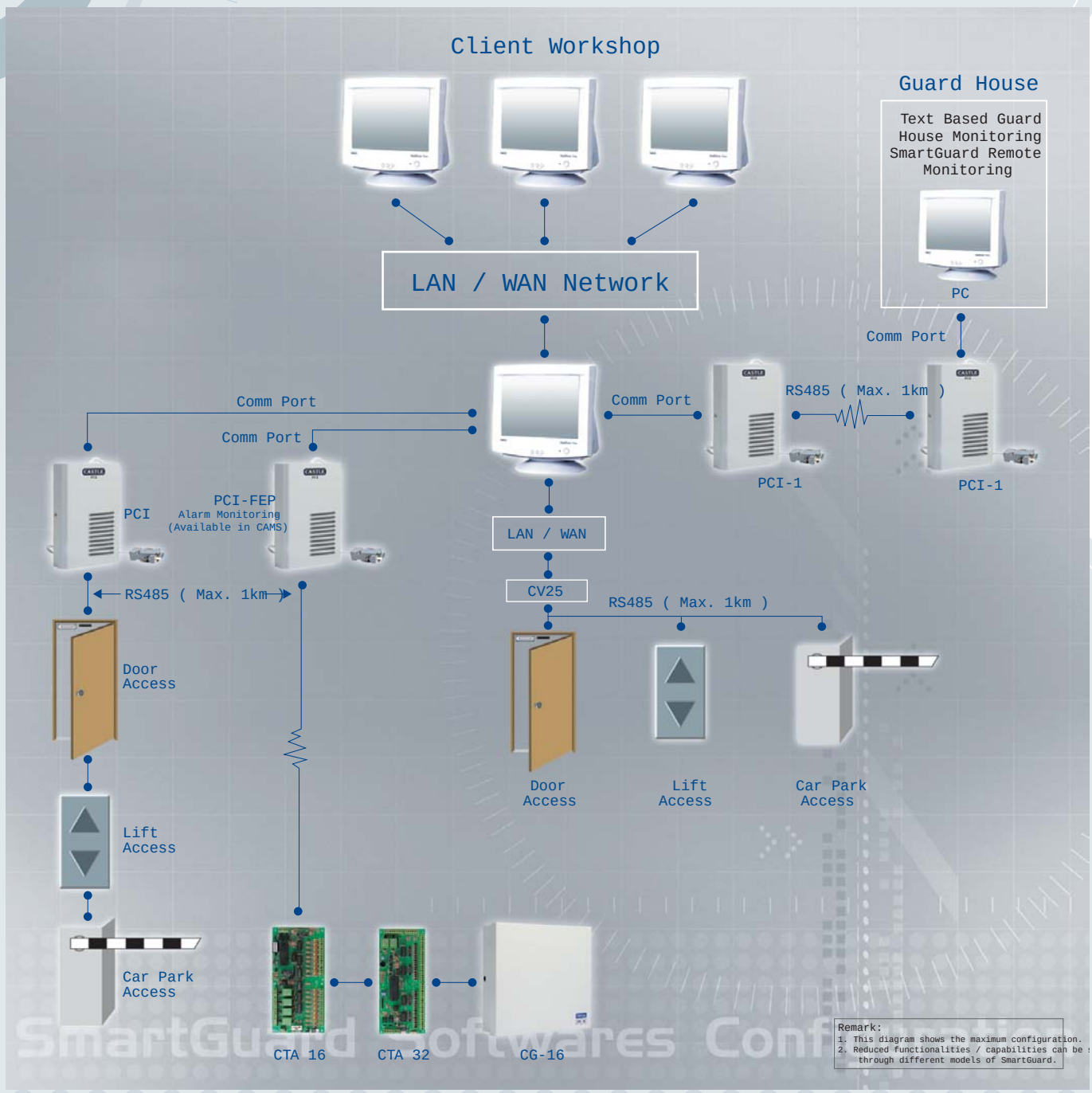
SmartGuard Pro - Remote can monitor and control up to a maximum of 128 doors. The controlling can also be done on the controller itself. The users can remotely perform a wide range of supervisory, control and monitoring function centrally from one computer,hence simplifying the jobs of the system administration. All the controllers are linked to the PC where the software resides in. SmartGuard Agent act as gateway between the SmartGuard Pro Remote and the Remote control and runs on Win9X or WinNT. It communicate with SmartGuard Pro Remote through TCP / IP and CASTLE Controller through comm port (RS 485)

SmartGuard Client - Server comes with all the features found in SmartGuard Pro plus multi-user, networking capabilities. Software user can perform the entire normal task on the remote PC just like on the same PC. Therefore, software user can remotely monitor, change and even generate reports without having to go to the PC where the controller is attached. In addition, it allows up to 3-software users to access the system at the same time. The networking system is based on the Windows Socket Communication Systems. The software package bundled with database server, a communication server and the client software at a very cost-effective price for implementing such system.

Key Specifications Comparison Chart

		Standard	PRO	PRO Remote	Client Server
1	Can manage up to 16/32/48/64 controllers (256/512/768/1024 doors)	●	●	●	●
2	Can manage Castle's controller for door and car park access system	●	●	●	●
3	Can manage Castle's controller for lift access system		●	●	●
4	Interlocking (4T controller only)	●	●	●	●
5	Alarm event trigger PC buzzer	●	●	●	●
6	Online transaction viewing	●	●	●	●
7	Online transaction printing by using Dot Matrix Printer	●	●	●	●
8	Dynamic graphical floor plan display	●	●	●	●
9	Floor plan containing the highest priority alarm will be brought up when alarm occurs	●	●	●	●
10	Automatic transaction data logging	●	●	●	●
11	Online Help feature	●	●	●	●
12	Short cut key	●	●	●	●
13	Unlimited cardholder records (limited to hard disk spaces)	●	●	●	●
14	Extra column for user information setting		●	●	●
15	Cards holders photo image feature		●	●	●
16	User configurable company name and logo setting	●	●	●	●
17	98 sets of user programmable access level and 2 pre-defined access	●	●	●	●
18	Support holidays	●	●	●	●
19	User definable door accessibility	●	●	●	●
20	User definable floor accessibility with floor zone setting		●	●	●
21	Individual / global door accessibility	●	●	●	●
22	Menu item accessibility can be assigned individually to each software user	●	●	●	●
23	Password protected software user	●	●	●	●
24	User configurable floor plan setting	●	●	●	●
25	User definable operation time sets and time zone	●	●	●	●
26	Multi search key order function	●	●	●	●
27	House keeping utilities - outdated transaction purging database backup and restore	●	●	●	●
28	Industrial database format - DBASE IV as transaction storage for easy integration	●	●	●	
29	Use SQL based database engine				●
30	Comprehensive report generation for all data setting, transaction report and time attendance report	●	●	●	●
31	Simple time attendance report generation (up to daily)	●			
32	Simple time attendance report generation (daily and monthly)		●	●	●
33	Flexi-Hour attendance setting		●	●	●
34	Staff leave management - Can generate leave slip		●	●	●
35	Staff overtime eligibility setting		●	●	●
36	Automatically calculate Over Time		●	●	●
37	Over Time starts grace period		●	●	●
38	User definable working hour and grace period setting		●	●	●
39	Card holders tracking		●	●	●
40	Card holders distribution		●	●	●
41	Car park collection setting			●	
42	Act as access system transaction server for 3rd party - allow 3rd party software to capture online transaction	●	●	●	●
43	Use together with Smartguard Agent or CV25 for remote connection			●	
44	Easy to use and setup	●	●	●	●
45	Menu command accessibility control	●	●	●	●
46	System Personalization		●	●	●
47	Multi-user, multi-terminal architecture				●
48	Runs on Windows Winsock TCP / IP networks				●
49	3 concurrent Client Access License				●
50	Bundled with PCI-CS RS-232 - RS-485 Communication Interface			●	●
51	Transaction exporter feature	●	●	●	
52	Modem / Remote Terminal Setting			●	
53	Web Enabled Application with Internet and Internet ready application				
54	Multi-users and multi locations access applications (with a correct configuration links installed, LAN or WAN connection			●	●
55	User friendly environment by using Web browser as a user interface				
56	Easy deployment for the client application at the runtime machine				
57	On-line HTML helps messaging				

System Configuration



Computer Requirements :

SmartGuard Standard / Pro / Pro-Remote

1. Microsoft Windows 9x or NT4 (Workstation or Server) or higher
2. PCAT with
   a. Celeron 466 MHz Processor or better
   b. 32 MB SDRAM or higher
   c. 20 MB free disk space for program file storage
   d. At least 500 MB free disk for data file storage and system temporary file
   e. 2 free comm ports
   f. Display system capable of displaying 800 x 600 resolution
   g. Mouse and keyboard
   h. Backup drive (can be floppy drive or Zip Drive)
3. 1 UPS for preventing temporary power interruption

SmartGuard Client-Server / Web-Enabled Application

1. a Microsoft Windows NT4 Server (SP3) or higher
   b Internet Information Server 4 (Web Server Application)
   c MS-SQL 6.5 or higher
2. PCAT with
   a Pentium III 550 MHz Processor or better
   b 128 MB SDRAM or higher
   c 100 MB free disk space for program file storage
   d At least 500 MB free disk for data file storage and system temporary file
   e 2 free comm ports
   f Display system capable of displaying 800 x 600 resolution
   g. Mouse and keyboard
   h. Backup drive (can be floppy drive or Zip Drive)
3. 1 UPS for preventing temporary power interruption

Car Park Access Control (SP-Series)

Features

Controls up to maximum 8 gates or barriers (4 entry & 4 entry) per controller
Card only operation
5,000 cards storage and 2,500 event transactions (Upgrade 10,000 cards and 10,000 event transactions)
Online printing by using Dot Matrix Printer
Max. 16 reader interface
Uses 2 wires of RS-485 to link back to controller (Reduce wiring)
16 key keypad Menu Driven Programming
To enter Programming mode with user definable 6 digit password (No Master Card required)
3 level password available :
I) Technician password - diagnostic testing only
II) Alarm password - alarm arming or disarming (Not necessary)
III) Master password - highest privilege
100 user time set with 3 interval each
100 user time zone (9 days per time zone)
100 access level control set consist of time zone, reader and expiry date
2 types of holiday definable, each 30 dates
Standalone or networked operation (Max. 256 barriers)
20 x 2 LCD with backlit menu driven display
Built in system diagnostic feature
User configure card expire date and temporary disable the card
Built in 12vdc power supply

Ordering Information

Controller

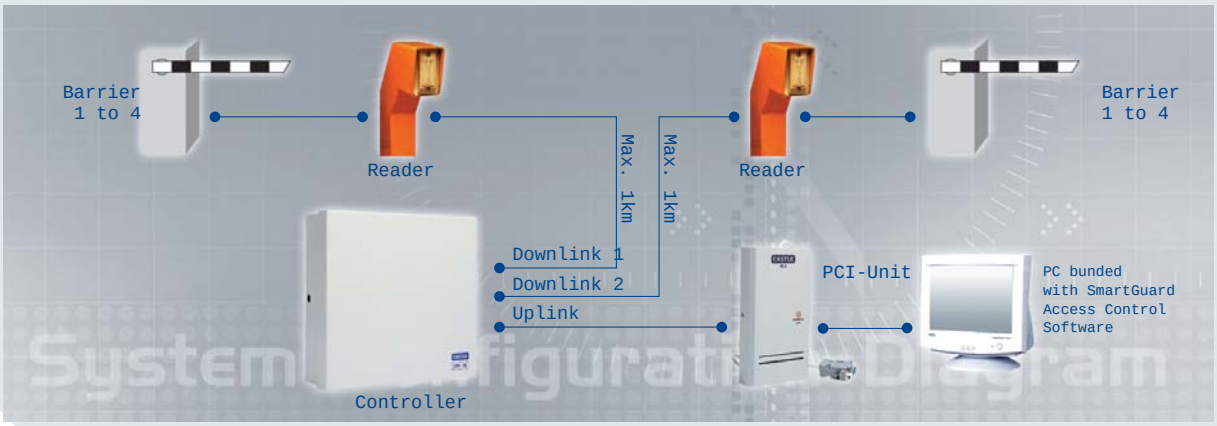
Dimensions :
330H x 290W x 114D mm

Stock Code	Description
CAS-2SP	Controller for 2 gates or barries. (Built-in power supply)
CAS-4SP	Controller for 4 gates or barries. (Built-in power supply)
CAS-8Sp	Controller for 8 gates or barries. (Built-in power supply)

Reader

Stock Code	Description
CPP-4SG-T	Proximity reader c/w reader interface unit & gooseneck. (Height: 955m) (Format: Magnetic signal)
CPP-4SG-MSN	Contact-less Smart Card reader (Mifare card serial number) c/w reader interface unit & gooseneck. (Height: 955m) (Format: wiegand 26 bits)

System Configuration



Lift Access Control (SL-Series)

The Castle 2SL is an expandable lift access system. It can be configured to control floor accessibility up to 16 floors/32 floors/48 floors, in multiple of 16. CTR-16 16-relay controller controls the floor selection button. Expanding the system from controlling 16 floors to 20 floors is only by adding one more CTR 16 to the system.

Features

Controls up to 2 lifts/COP under one controller (2 bus)
Controls up to 16/32/48 floor selection buttons on each lift / COP
1 bus can only support 1 reader and 3 relay controller (relay board)
2 core wires required for communication (Max. distance 1 km)
5,000 card holders
2,500 transactions
100 Time sets each with 3 time intervals
100 Time zones
100 Access Levels
100 Floor Access Levels
100 Floor Zones each with 6 floor intervals
2 x 20 backlit LCD, menu driven programming
Connects to PCI-PRO, PCI-CS1, PCI-CS2 for data downloading and online transactions monitoring
Can be networked through 2 wires RS-485 with Castle-S series Door Access and Car Park Access Controller to PC running SmartGuard Pro and controlled under the same software
Power supply : 12 Vdc @ 500 mA

CTR-16 Relay Board General Specification

Controls up to 16 relays output
On board 10A 24Vdc, 6A 240Vac relay
For lift selection button and lift expansion
Power supply : 12Vdc @ 500mA

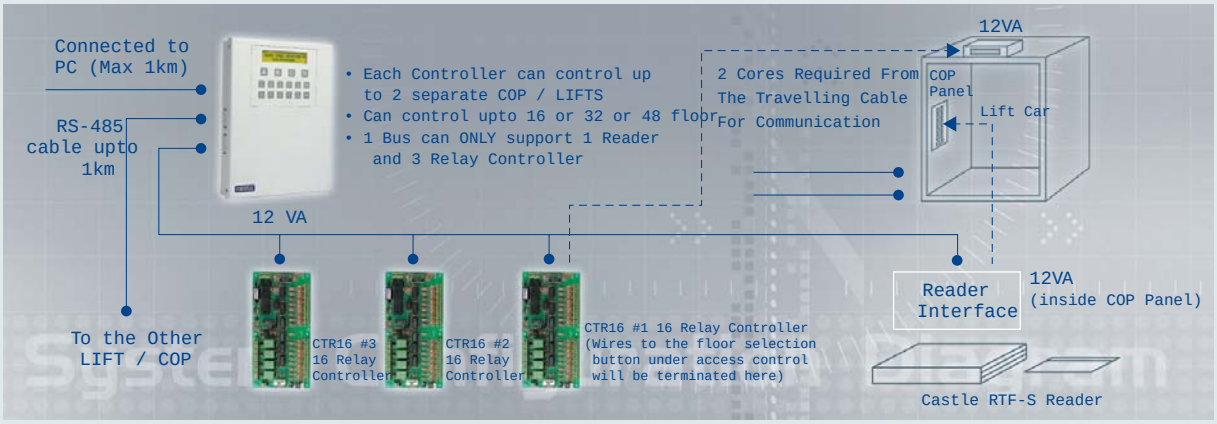
Accessories

16 relays output board
Power supply
PC-Interface unit - PCI-PRO, PCI-Pro-Remote or PCI-Client Server

Ordering Information

Stock Code	Description
CAS-2SL	Control 2 lift car only Dimension : 68D x 189W x 547Hmm
CTR-16	16 units on board 10A/24 Vdc, 6A/240 Vac relay Dimension : 120L x 255Wmm
LR-PROX-T	Proximity reader c/w reader interface unit without keypad Dimension : 35D x 128W x 167Hmm
LR-MAG	Magnetic swipe reader c/w reader interface unit with 12 keys polycarbonate keypad Dimension : 35D x 128W x 167Hmm

System Configuration Diagram



Castle Alarm Monitoring System (CAMS)

Features

User Friendly.
Runs on Windows NT4 and above. (Well-known stable platform for critical Windows Application)
Controls Access Control, Alarm Monitoring , Guard Tour System and simple Time Attendance System, under the same software.
Manages CASTLE-S/T Series Door Access Controllers,
CASTLE-SL Series Lift Access Controllers,
CASTLE-SP Series Car Park Access Controllers and
CASTLE-FEP-ALM Series Alarm Front End Processor.
Access Control Capacity
a. Use only RS485 - 2 wires to connect to each controllers.
b. Max. 2 buses of controllers.
c. Can control up to 2 buses of access controllers
(16 controllers per bus)
(1 bus = max. 128 doors, 2 bus = max. 256 doors depending on controller model configuration)
d. 5000 Card Holders.
e. 2500 Transactions Buffer In First In First Out Basic.
f. 100 Time Set.
g.100 Time Zones.
h.100 Door Accessibility.
Alarm Monitoring Capacity
a. Use only RS485 - 2 wires to connect to each controller.
b. Max. 2 buses of Alarm Panels (16 Alarm Panel per bus).
c. Can control up to 32 CASTLE Alarm Panel under the FEP.
d. Alarm Panels includes
i.CTA 16-16 Supervised input and 4 relay outputs card. (Supervised inputs are able to detect Fault, Alarm and Normal).
ii. CTA 32 - 32 Mimic Panel LED Driver card
iii. CG 16 - 16 Station Guard Tour Controller.
e. Max. 512 supervised Inputs.
f. Max.128 Relay Outputs (Can be triggered by event program or time zone or manual control)
g. Max. 100 tour routes can be configured.
h. 99 Event Programs.
i. 16 Guard Tour Station (Can be Card Swipe Station / Key Switch Station)
Software User Interface
a. User Friendly.
b. Dynamic Floor Plan Display.
i. Each device in the system is represented by icon.
ii Icon will be flashed when the corresponding input device is in alarm.
iii. Different icon is used to represent the respective state of the device.
iv. When alarm occurs the floor plan systems will switch to the floor plan page containing the device.
v. Max. 100 floor plan can be configured.
vi. Max. 20 devices per floor plan.
vii. Floor plan can be configured right from the same software.
viii. Auto floor plan switching featured.
c.PC Buzzer Sounder when alarm triggers.
d.Comprehensive Report Generation.
e.Daily and Monthly Time Attendance Report Generation.
f. Menu Accessibility Control.
g.Can place own logo in the report print out.
h.Password protection system operator.
i.Photo can be included in the card holder database.
j.Automatic Transaction Uploading.
Uses RS485 Communication - Industrial Standard Communication Technology.
Client / Server Version available for Multi - Workstation Working Environment and using MS-SQL Database.
Instruction message can be defined.
On-line help.

Ordering Information

1) CTA 16 - 16 Supervised Inputs and 4 Relay Outputs Board
16 Supervised Inputs and 4 Relay Output Board.
Connect to the FEP (Front End Processor) using only 2 wires (RS485).
LED indicator on board for easy troubleshooting.
Inputs are supervised for cut and bypassed.
Able to detect Alarm and Normal Conditions in 1 resistor termination mode.
Able to detect Cut, Bypassed, Alarm and Normal Conditions in 2 resistor termination mode.

Terminating Resistor
a) 1 resistor mode - 3300 ohm.
b) 2 resistor mode - 2200 ohm and 3300 ohm.
Relay Specification:
a) 10A @ 24VDC.
b) Termination N/C, N/O and common.
Power Consumption: 12VDC @ 800mA.
C/W
a) 12V 3A Linear Power Supply.
b) Housed in Sturdy Metal Casing.
c) Space for Backup Battery.

2) CTA 32 - 32 LED Driver / 4 Digital Inputs / 2 Relay Outputs Board

32 LED Driver and 4 digital inputs and 2 Relay Outputs Board.
Connect to the FEP (Front End Processor) using only 2 wires (RS485).
Used in the Physical Alarm Mimic Panel for status indication.
LED can be connected directly to the terminal.
LED #31 and #32 are driven together to the 2 onboard relay for providing higher current application such as Siren Activation.

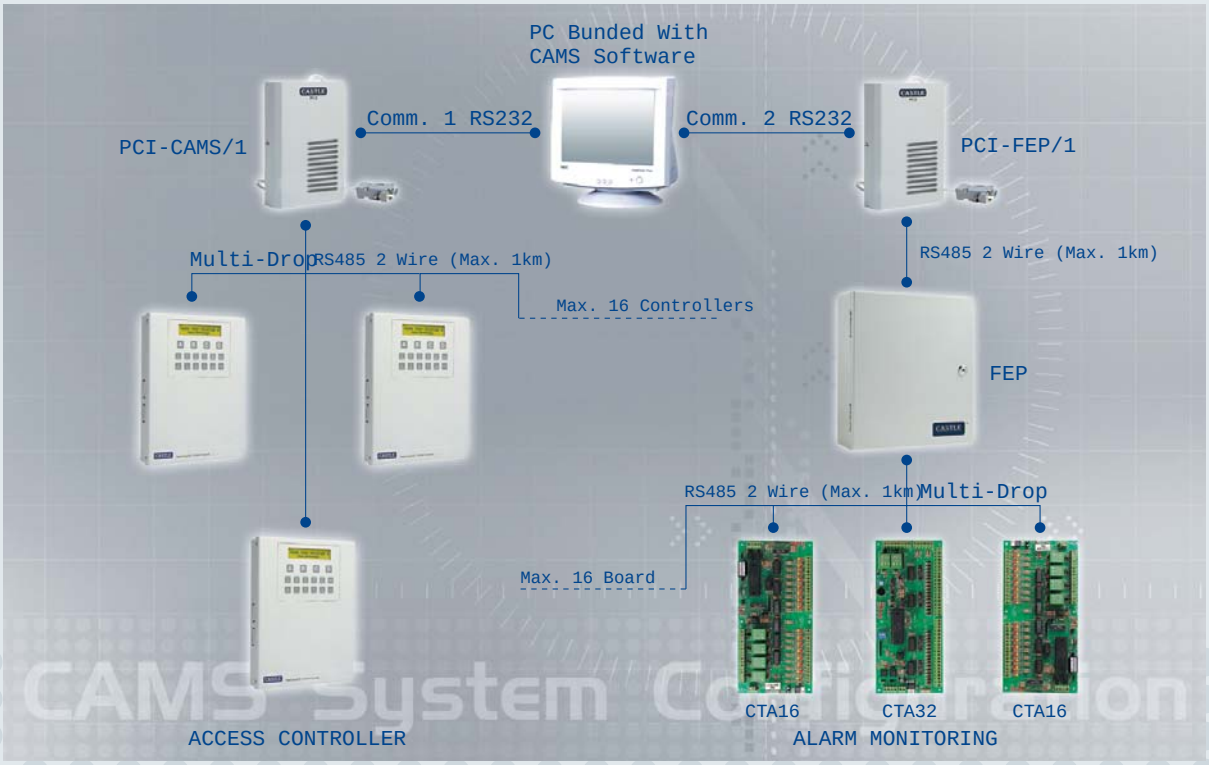
4 TTL digital inputs are provided for interfacing to input requirement at the Alarm Mimic Panel such as Acknowledgement Keyswitch.
Relay Specification:
a) 10A @ 24VDC.
b) Terminal N/C, N/O and Common.
Power Consumption: 12VDC @ 800mA.
C/W
a) 12V 3A Linear Power Supply.
b) Housed in Sturdy Metal Casing.
c) Space for Backup Battery.

3) FEP (Front End Alarm Processor)

Front End Alarm Processor.
1 bus or 2 bus (FEP/1, FEP/2).
Connect to CTA16, CTA32 and CG16 using RS485 (only 2 wires).
Monitor up to 512 input points and 128 Relay Outputs (Full Configuration).
Perform Real-Time Alarm Scanning and Event Processing.
99 Event Programs.
2500 Transactions Buffer.

On board Battery Backed Memory.
On board Battery Backed Real Time Clock.
2 x 20 Backlit LCD.
Power Consumption: 12VDC @ 1A.
C/W
a) 12V 3A Linear Power Supply.
b) Housed in Sturdy Metal Casing.
c) Space for Backup Battery.

System Configuration



Computer Requirements:	
1 Microsoft Windows NT4 (Workstation or Server) or higher. 2 PC AT with a. Pentium II 450 Processor or better. b. 28 MB SDRAM or higher. c. 20 MB free disk space for program file storage. d. At least 500 MB free disk space for data file storage and system temporary file.	e. 2 free comm ports. f. Display system capable of displaying 800 x 600 resolution. g. Mouse and Keyboard. h. Backup drive (can be floppy drive or Zip Drive) 3. 1 UPS for preventing temporary power interruption.

Time Attendance

Features

Simple operation
Housed in sturdy metal casing coated with epoxy to prevent vandalism
Tubular cam lock for locking front casing
Attractive and easy to read clock face (Digital Clock)
Onboard buzzer provides instant visual operation feedback
Transaction storage full detection
Transaction data stored in long format
Battery backed memory can store up to 3500 transactions
Battery backed onboard Real-Time Clock
Controller board power requirement - 12 VDC @ 1A
1 free contact relay output with 30 programmable pulse on time (30 second long)
7-seg LED display for time display
1 green and 1 red LED for convenient visual result indication
1 CPU internal watchdog and 1 external hardware watchdog to prevent the CPU from halting
2 wires RS485 communication at 2400bps to host computer for data downloading and programming
Card format supported:
i) Contact-less Smart Cardi)
ii) Proximity
iii) ABA Magnetic ISO Track 2
iv) Bar Code 3/9 Format
Y2K Compliant
Dimension : 35D x 227W x 187Hmm
Other accessories :
i) CPC-30 (3A/230W) Power Supply
ii) CV25-Ethernet to RS485 converter(TCP/IP)
iii) PC - Interface unit
- CT3K
- CT200

Time Reports Software Features

Features Overview
Run on Windows 9x / Window NT4 and above
Ms Windows software
User friendly and easy to use
Required PCI-CT200 or PCI-CT3000 as signal converter for transaction downloading and programming the Time Recorder CT-200 or CT-3000
Reads data from Time Recorder CT-200 or CT-3000
Manages up to 16 Time Recorder CT-200 or CT-3000
Each of the staff record can be set individually whether he/she eligible for OverTime or not
Each of the staff record can be assigned individually Work Time Set to indicate the appropriate working hours of the staff
Staff Leave Management
Can generate leave slip
Supports activities monitoring
Supports holidays
Daily clocking record editing for user overriding while maintaining recorded clocking time
Can be set to automatically calculate OverTime
OverTime starts grace period
Information daily clocking report
Attendance status include Early In, Early Out, Late In, Late Out,Good, OT, On Full Day Leave, On Half Day Leave, Holiday, Absent and In Complete Clocking
Attendance Time status include Late In Time, Early In Time, Late Out Time, Early Out Time, Total Worked Time and Total OverTime
Can be saved as ASCII text file for easy integration
Automatically generates monthly attendance report
Monthly attendance reports include :
i) Total count of every attendance status of a particular employee for the mont
ii) Total count of every attendance status of a particular department for the month
iii) Total count of every attendance status of all the employee for the month
iv) Total Worked Time of employee for the month
v) Total OverTime of a employee for the month

vi) Total Late In time of an employee for the month
vii) Total Worked Time of a department for the month
viii) Can generate top 10 late in staff list for the month
ix) Monthly analysis report whereby the monthly attendance statistic and all the daily clocking record of a employees are printed on to the same page for easier analysis

Password protected software user
Menu Item Accessibility can be assigned individually to each software user
Online help
Transaction Purging utility
Data Backup / Restore utility

Ordering Information

	Stock Code	Description
 Dimensions : 150H x 225W x 55D mm	CT-200P	Generic time recorder and activity monitoring
 Dimensions : 187H x 227W x 35D mm	CT-3000P	12 keys keypad as shift selection to support 9 shift
 Dimensions : 150H x 90W x 25D mm	PCI-CT200	Time Report softwares
	PCI-CT3000	Time Report softwares

System Configuration

FingerPrint System

Controller General Specifications

High speed MCU running at 24MHz
512Kbyte SRAM
On board battery backed Memory and RTC
100 Time Sets each with 3 intervals
100 Time Zones (9 days per set)
30 Holiday dates (2 sets)
Anti-passback
Duress Alarm
Controls up to 2 CAS-FPR1 door reader interface unit (1 door, 1 IN/1 OUT) or
Control 1 CAS-FPR1 (entry) with exit push button (exit)
Max. 640 FingerPrint Memory (Expandable)
Max. 10,000 transactions records (First In First Out Basis)
1 Event Triggered Relay Output
1 General Purpose Relay Output (Can be triggered manually or by time zone control)
4 sensors (can be controlled manually or by time zone control)
Equipped with 2 x 20 backlit LCD and 16 keys keypad for programming
Menu Driven programming
2 modes of operation :
a. Fingerprint only mode
b. Fingerprint + PIN mode

3 levels of password :
a. Master Password
b. Technician Password
c. Alarm Control Password
On board buzzer for audible feedback
Housed in sturdy metal casing, coated with epoxy
Tubular cam lock for locking front casing & emergency lock release (lock for fail safe)
Connects to CAS-FPR1 using 6 wires RS485
Can be networked together with other controller under one PC software control using 2 wires RS485 (Total wire span 1 km)
Can designate one fingerprint as FingerPrint Registration Station and user is not required to go to all the reader to register their fingerprint.
Manages CASTLE-S-SERIES Controllers in one software - Smartguard Pro.
Door lock, door release button and magnetic contact are connect back to controller in order to provide more security against the unauthorise break in on the door reader.

Reader General Specifications

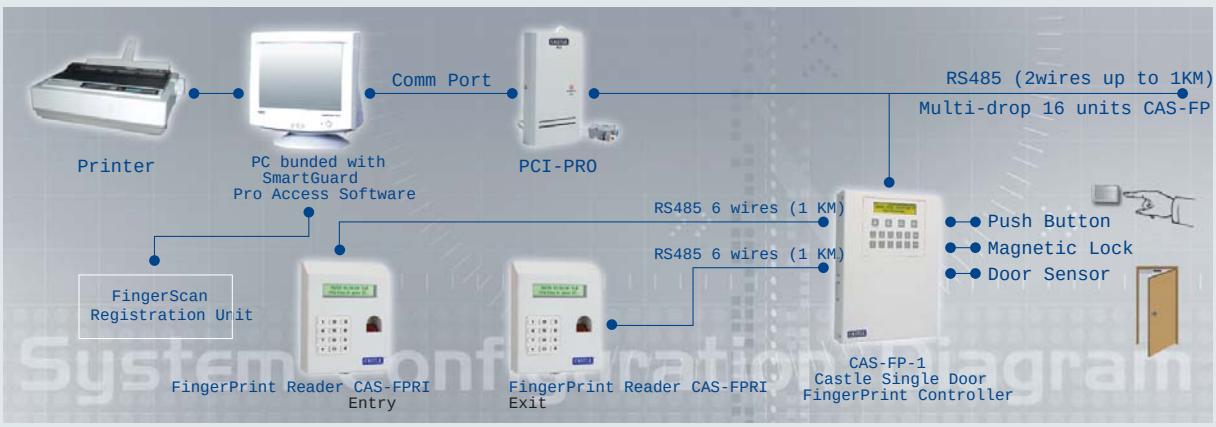
User - friendly
2 x 20 backlit LCD for usage guidance and time display
On - board buzzer for audible feedback
12 keys keypad
FingerScan Reader mounted on easy accessible location
Housed in sturdy metal casing, conted with epoxy.

Accessories :
SmartGuard Pro Access Control Software
Fingerprint Registration Unit
PC-Interface unit - PCI-PRO

Ordering Information

Stock Code	Description	(D x W x H)mm
CAS-FP-1	Single door FingerPrint controller	55 x 220 x 310
CAS-FPR-1	FingerPrint reader	55 x 135 x 168
PCI-PRO	PC Interface unit together with SmartGuard Pro Access Control Software	

System Configuration Diagram



Castle Electronic Safe (CES)

Removeable Shelf

Moveable Dead Bolts

Metal Casing With Epoxy Coating

Concealed Hinges

Polycarbonate Keyboard

Turn Knob

W eight : 72kg
Color : Light Grey
Finish : Epoxy Coating

Dimensions	Height	W idth	Depth
External	338mm (13.3)	438mm (17.2)	380mm (15)
Internal	238mm (9.4)	378mm (14.9)	260mm (10.2)

Our Commitment to Your Concern for The Safety of Valuables

Invariably, the safety of your valuables is of foremost concern. Just imagine, if your home was burglarized or destroyed by fire, which items would you miss most? Money, certificates, photographs, jewellery or others? W ith that in mind and to assure you of the safety of such items, take a close look at what Castle, a well-known and reputable manufacturer in the access control security industry, has to offer in terms of safe-keeping. A reliable solution for the safety of your valuables is our recently introduced Castle Electronic Safe (CES).

Distinctive Security Features

1. Burglar alarm output
   Internal audible alarm output is triggered when break-in attempt of safe occurs.

2. External connection for alarm (optional)
   The alarm will be triggered when there is a burglary or removal of the electronic safe from its original position.

3. Reinforcing bolts for home alarm connections
   It is optional to anchor the safe to any stable base (e.g. floor) by utilizing two reinforcing bolts for added security. The alarm will trigger if the safe is lifted.

4. Aesthetic design with hidden hinges and metal casing
   The epoxy coated surface will prevent vandalism and also provide ultimate protection to the safe (heat-resistant, anti-rust and scratch proof).

5. Moveable dead bolts and rebate bar
   A pair of moveable dead bolts (front edge of the door) and a continuous rebate bar (back edge of the door), are embedded within the safe s structure. This feature provides additional resist ance to any forced entry attempts.

6. 12 keys polycarbonate keypad
   The keypad is for the user to key-in a 6-digit password to unlock the safe. By using the keypad, the user can easily change the password.

7. Removable shelf
   The user can have a bigger space to place valuables by removing the shelf.

Operational Specifications

1. Auto lockout - 30 minutes penalty lockout after 5 incorrect entries so as to prevent manipulation attempts.
2. Simple installation and operation.
3. Accessible at anytime as door lock opens up to 1,000 times
4. Piezo Buzzer for audio feedback
5. Full Complementary Metal-Oxide Semiconductor (CMOS) design
6. Door slam shuts when closing
7. 6dvc battery pack (4pcs of C size battery) with estimation of one year life-span
8. Low power indication - under normal operating environment, there will be a beep sound to alert the user that battery power is running low.

Supported by :

CASTLE®
TOTAL SECURITY SOLUTION

Cass Technology Sdn Bhd [338857 - X]

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MADE IN MALAYSIA