Power832/864

Engineer's Specifications

Contractor shall provide a complete electronically supervised, fire and burglary alarm system, with rechargeable backup battery.

EEPROM Memory

The alarm panel shall be equipped with EEPROM memory to retain all program information even if all AC and battery power are lost. The panel shall have integral static and lightning protection circuitry.

Communications Bus

System shall be complete with a 4 wire unshielded (QUAD) communications bus that allows system expansion modules for features, zones, and outputs to be added anywhere on the bus up to 1,000 feet (305m) per leg from the main control panel.

Alarm Communications

The alarm panel shall be complete with an integrated digital communicator capable of being programmed to transmit to three phone numbers or locations with 2†/8†† account numbers. The system communicator shall be capable of communicating in all major formats including SIA and Contact ID. Events transmitted shall be programmable to include: fire alarms, burglary alarms, trouble alarms, supervisory conditions, alarm restoral codes, opening (disarming) and closing (arming) codes, partial closing codes, and opening after alarm codes. The system shall be capable of paging personnel on the occurrence of any of the preceding events, as selected by the owner.

The communicator shall be capable of supervising the telephone line, and shall support and supervise LINKS cellular and long range radio communication with three telephone numbers for backup or sole communications to monitoring stations and for upload/download operations.

Where required, system shall support and supervise dual telephone lines.

The system shall be capable of DVACS* communication.

The system shall be capable of transmitting a test code to the monitoring station(s) on a programmable daily, weekly or monthly frequency at a regular time of day.

Alarm Zone Types

The system shall be complete with a multi-zone alarm system with a capacity for 32†/64†† burglar or Class B fire zones in any combination from up to 32†/64†† standard hardwired zones, 8 keypad zones, 32 wireless zones, and 32 addressable zones. All zones shall be supervised and be programmable as 1 of 27†/34†† zone types. System shall also accommodate 2 Class A supervisory waterflow zones and 1 ground fault detection zone as part of the 32†/64†† zone capacity.

The system shall allow 'Stay'/'Away' zone programming and 'Stay' arming to allow the user to remain on the premises while the system is armed. A quick-arm feature shall allow users without access codes to arm the system and exit. A door chime feature shall cause the keypad to beep when a selected door in a partition is opened or secured.

Partitions

The system shall allow up to 2†/8†† partitions, each acting as a separate alarm system with its own zones, user codes, and keypads for programming, arming and disarming. Each partition shall be programmable to auto-arm at different times on every day of the week.

Auxiliary Power

The system shall be capable of providing up to 1.55 Amps of auxiliary power (@12.5VDC) for modules and alarm devices.

Programmable Outputs

The system shall have a capacity for 9 low current (50mA) programmable outputs; and 5 high current (300mA) programmable outputs, of which one can be fully supervised for an additional siren. All outputs shall be programmable to activate for 1 of 25 options.

Audible Alarm Output

Main alarm panel shall include a 700mA, PTC-protected, supervised bell/siren circuit that will drive a bell/siren until reset or silenced. Siren output shall be programmable as steady, temporal pattern, CA pattern, pulsed, or strobe fire output for each zone. An additional 700mA alarm output shall be provided by using one of the system's high current programmable outputs.

System Supervision

The system continuously monitors the following trouble conditions :

- AC power failure
- fire trouble
- low battery
- loss of internal clock
- fail to communicate
- camera troubles
- module fault (supervisory or tamper)
- trouble by zone
- telephone line trouble
- bell output trouble
- tamper by zone
- aux. power supply fault
- ground fault (with PC5700 module only)

False Alarm Prevention

The alarm panel shall include the following false alarm prevention features :

- audible exit delay
- quick exit
- swinger shutdown
- recent closing transmission
- double hit timer
- rotating keypress buffer
- audible exit fault
- urgency on entry delay
- cross zone alarm
- burglary-verified timer
- communication delay
- arm/disarm bell squawk

Access Codes

The system shall allow 38 - 4 or 6 digit access codes, composed of 1 system master code, 2 partition/supervisor master codes, 2 duress codes, 1 maintenance code, and 32 user codes.

Hardwired Keypads

The system shall support any combination of up to 8 Programmable Message LCD, Fixed Message LCD, and LED keypads, each with an alarm zone input to allow an alarm zone to use keypad wiring for connection to the alarm panel. Keypads shall be surface-mounted and capable of fully programming and operating the system. Each keypad shall be assignable to operate the entire system or an individual partition.

Programmable Message LCD keypads shall be complete with 32 character liquid crystal display (LCD) to provide plain language programming instructions, operating instructions and display of all alarms and supervisory conditions. In addition they shall be multi-language, capable of toggling between languages by pressing a key combination on keypad. Languages shall be specified at time of order.

Fixed Message LCD keypads shall be complete with a Fixed Message liquid crystal display (LCD) to provide alarm system status. The language shall be specified at the time of order.

LED keypads shall have 8, 16, or 32 zone indicators as required.

All keypads shall have 5 programmable function keys with 25 program options.

All keypad keys and displays shall be backlit and include backlighting boost to provide extra high key lighting when any key is pressed.

†Power832® ††Power864™

DVACS is a trademark of Electro Arts Ltd.

All keypads shall have rotating keypress buffer to reduce access code entry false alarms. Keypads shall be programmable to lock out if a series of incorrect access code entries is made.

All keypads shall have keypad-activated emergency alarms for panic, auxiliary, fire, and duress; LED indicators for Ready, Armed, and Trouble or Status; and shall be equipped with a piezo buzzer to provide audible feedback for correct key entries, pre-alert, and trouble.

Wireless Security & Control

All detectors shall be fully supervised for communication integrity.

Wireless control devices shall include up to 4 wireless keypads (in addition to hardwired keypads), and up to 16 wireless keys for remote arm/disarm. In addition, the system shall accommodate up to 32 wireless panic pendants (each occupying one wireless zone in lieu of a wireless detector).

Voice-Assisted Security & Automation

The system shall allow any tone phone to be used as a fully functional keypad for both global and partition control via an extensive library of voice prompts for security and automation programming, operation, and system status feedback.

Voice prompts shall include 250 system words for pre-programmed system functions and user-programmable voice prompts of up to six words each in length for Zone Labels, Partition Labels, Automation Item Labels, and Automation Mode Labels. Words for user-programmable voice prompts shall be chosen from a 240 word user library.

Automation shall be via a built-in power line interface for up to 32 CEBus™ or X-10 control devices. Temperature control shall include up to 4 thermostats, each with up to 6 indoor temperature sensors for indoor temperature averaging and 1 outdoor temperature sensor for outdoor temperature display.

Automation control shall provide :
- 16 schedules with On time, Off time, and day of week
- 8 user-controlled automation modes
- full range of dimming levels for lighting control
- event-activated control for any PGM output supported by the main panel

Still-Frame Video Alarm Verification

The system shall be capable of transmitting still-frame video to suitably equipped Sur-Gard MLR2 receivers. System shall accommodate inputs from 8 cameras, VCRs, or video switchers. Each alarm zone shall be programmable to initiate video capture and to transmit 4 frames from any video sources as programmed.

System shall be programmable as a switcher allowing the video inputs to be viewed on a monitor with manual switching or automatic sequential switching between inputs.

Intercom Audio Interface

The system shall be complete with intercom audio interface capable of supporting 7/15 intercom stations.

Local intercom functions shall include page/answer, do not disturb, doorbell answer, and door strike release.

A listen-in broadcast function shall allow any station to be programmed as a broadcast station that can be listened to by all other interior stations on the system.

Intercom stations shall be programmable to allow answering of phone calls received on a premise voice line and shall support Call Waiting and allow transfer to in-house phones.

Intercom stations shall be programmable as sounders for burglar and fire alarms.

System shall include central station 2-way listen-in intercom stations to accommodate listen-in monitoring and alarm verification.

Upload/Download

The system shall be uploadable/downloadable to allow programming and operation from a directly connected local computer, or from a remote computer over a telephone line or LINKS cellular communications equipment. Remote access shall be controlled by the owner to prevent unauthorized access.

Serial Printer

The system shall support a 300, 1200, 2400 or 4800 bps serial printer connected to the communications bus up to 1,000 feet (305m) from the control panel. The printer shall log all system events and transactions with time and date stamp. Information shall be stored in the system's 128-event buffer which can be examined from the LCD keypad or via the DLS software.

Approvals

The system shall meet UL and ULC standards as required for type of application.

Agency Approvals

United States

- **UL365 Police Station Connected Burglar Alarm Units & Systems**
- **UL609 Local Burglar Alarm Units and Systems**
- **UL864 Control Units for Fire Protective Signalling Systems (Power864CF ONLY)**
- **UL985 Household Fire Warning System Units**
- **UL1023 Household Burglar Alarm System Units**
- **UL1610 Central Station Burglar Alarm Units**
- **UL1635 Digital Alarm Communicator System Units**
- **UL1637 Home Health Care Signalling Equipment (Power864 ONLY)**

Canada

- **ULC Commercial and Residential Fire/Burglar Alarm**
- **ORD-C1023 Household Burglar Alarm System Units**
- **CAN/ULC-S303 Local Burglar Alarm Units and Systems**
- **CAN/ULC-S304 Central and Monitoring Station Burglar Alarm Units**
- **ORD-C693-1994 Central Station Fire Protective Signalling Systems and Services**
- **CAN/ULC-S545 Residential Fire Warning System Control Units (Power864 ONLY)**
- **CAN/ULC-S527 Control Units for Fire Alarm Systems (Power864 ONLY)**

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