PowerSeries Neo Alarm Controller

Models: (HS2016/HS2032/HS2064/HS2128)

Version 1.0

Architecture and Engineering Specification

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PowerSeries neo

Architecture and Engineering Specification

Table of Contents

Introduction and System Overview 1

Introduction 1

System Overview 1

Regulatory Requirements 2

Regulatory Compliance Standards 2
- US Approvals 2
- Canadian Approvals 2
- European Approvals 3
- South America 4
- Oceania 4
- Asia 4
- Africa 5

Model Feature Overview 6

Model 6
- HS2016 6
- HS2032 7
- HS2064 7
- HS2128 8

Corbus 9

System Performance 10

Model 10
- HS2016 10
- HS2032 10
- HS2064/HS2128 10

Zone Expansion 11
- HS2016 11
- HS2032 11
- HS2064 11
- HS2128 11

System Keypads 11
- HS2016/ HS2032/ HS2064 11
- HS2128 12

ULC Fire Monitoring and Reporting 12

Alternate Reporting Methods 12

Central Station Reporting 12

Programmable Outputs 12
- HS2016 12
- HS2032 13
- HS2064 13
- HS2128 13

System Software 13

System Programming 13

User Codes 14
- HS2016 14
- HS2032 14
- HS2064/HS2128 14

Partitions 14
- HS2016 14
- HS2032 14
- HS2064/HS2128 15

Supervision 15

False Alarm Prevention 15

Automatic Arming/Disarming 16

Temporary Zone Disabling/Bypassing 16

Network Communications 16

Mechanical, Electrical, and Environmental Specifications 17

Mechanical Specifications 17
- Electrical Operating Voltages 18
  - Communicator 18
  - Hardwired Keypads 18
  - Hardwired RF Keypads 18
  - Zone Expanders 18
  - Output Module 18
  - Power Supply/High-Current Output Expander 19

Electrical Specifications (base panel) 19
- Bell Output 19
- AUX Output 19
- PGM Outputs 19
- Corbus 19
- Battery Charger 20
- Input Power 20

Environmental Specifications 20
- Operating Environment 20

Wiring Diagram (HS2016/2032/2064/2128) 21

Execution 22

Installation 22

System Testing and Certification 22

1

Introduction and System Overview

Introduction

The purpose of this document is to introduce you to the PowerSeries Neo alarm panel and to provide you with detailed information on its specifications and features. The following areas are covered in this document:

- Regulatory requirements
- Model features
- System performance
- Mechanical, electrical, and environmental specifications

Important: For detailed information about the PowerSeries Neo alarm panel "wireless" component, refer to the document*: PowerSeries Neo 1.0 Wireless Host Architecture and Engineering Specification*.

System Overview

The PowerSeries Neo alarm panel is a feature-rich, scalable system designed for residential and commercial use. The alarm panel supports both hardwired and wireless devices.

The following alarm controller models are available:

- HS2016
- HS2032
- HS2064
- HS2128

2

Regulatory Requirements

This chapter identifies all regulatory system requirements for the PowerSeries Neo alarm panel.

Regulatory Compliance Standards

US Approvals

a) UL

i. UL1023 Standard for Household Burglar Alarm System Units (4h Battery Standby required)

ii. UL985 Standard for Household Fire Warning System Units (24h Battery Standby required)

iii. UL1635 Standard for Digital Alarm Communicator System Units

iv. UL1610 Standard for Central Station Burglar Alarm Units

v. UL365 Standard for Police Station Connected Burglar Alarm Units and Systems

b) SIA

i. ANSI/SIA CP-01-2010 Control Panel Standard – Features for False Alarm Reduction

c) FCC

i. TIA-968-B Technical Requirements for Connection of Terminal Equipment to the Telephone Network (USA)

ii. CISPR22 Class B Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

Canadian Approvals

a) ULC

i. ULC-S545-2002 Standard for Residential Fire Warning System Control Units

ii. ORD-C1023-1974 Standard for Household Burglar Alarm System Units

iii. CAN/ULC-S304-2006 Standard for Central & Monitoring Station Burglar Alarm Systems

iv. CAN/ULC-S559-2004 Standard for Equipment for Fire Signal Receiving Centers and Systems

b) IC

i. ICES-003 (CISPR22 Class B) Standard for Interference Causing Equipment, Digital Apparatus

ii. IC-CS03 Issue 9, Industry Canada Terminal Equipment Technical Specifications

European Approvals

a) CE

i. TS 203 021 Parts 1, 2, 3 European Telecommunication Specifications

ii. CISPR22 Class B Information Technology Equipment – Radio Disturbance Characteristics – Limits

iii. EN50130-4:2011 Immunity Requirements for Components of Fire, Intruder, and Social Alarm Systems

iv. EN60950-1:2006 ITE. Safety. General Requirements

b) EN

i. EN50131-1:2006+A1:2009 Intrusion Systems General Requirements, Grade 2, Class II

ii. EN50131-3:2009 Control and Indicating Equipment , Grade 2, Class II

iii. EN50131-6:2008 Power Supplies, Grade 2, Type A (12h standby time with AC trouble transmitted)

iv. EN50130-5:2011 Environmental Test Methods for Alarm Systems, Class II

v. EN50136-2-1:1998 Alarm Systems – Alarm Transmission Systems and Equipment Part 2-1: General Requirements for alarm transmission equipment

c) INCERT Certification

i. T-014:2012 General Requirements for Testing the Alarm Systems (24h standby time mandated)

d) NFA2P Certification

i. RT50131-3: 2009 – Control Units French Deviations from EN50131-3

ii. RT50131-6: 2009 – Power Supply French Deviations from EN50131-6

e) SBSC Certification

i. SSF 1014-3 Intrusion Alarm System Requirements

ii. SSF 114 – Alarm Transmission Systems

f) UK

i. BS8243:2010

ii. PD6662:2010

South America

a) Anatel

i. NET 001/92, Resolution 392, 237, 442 and 529 Brazilian Telecom Standards

ii. EN60950-1:2006 ITE. Safety. General Requirements

iii. CISPR22 Class B Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

Oceania

a) A-Tick

i. CISPR22 Class B Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

ii. AS/ACIF S002:2005 Australian Telecom Standard – Analog interworking and non-interference requirements for Customer Equipment for connection to the PSTN

iii. AS/NZ 60950.1:2003/Amdt 1:2006 – Information Technology Equipment – Safety – General Requirements

b) Telepermit

i. PTC200 Requirements for Analog Telecommunications Equipment

ii. AS/NZ 60950.1:2003/Amdt 1:2006 – Information Technology Equipment – Safety – General Requirements

c) C-Tick

i. CISPR22 Class B Information Technology Equipment – Radio Disturbance Characteristics – Limits and Methods of Measurement

Asia

a) CCC Certification

i. GB 12663-2001 General Requirements for Burglar Alarm Systems

b) MII Telecom

i. YD/T868 – 1996 China Telecom Requirements for Alarm Panels and MII Certification

ii. YD/T993 – 1998

iii. YD/T965 – 1998

iv. YD/T968 – 2002

v. YD/T1277.1 – 2003

vi. GB/T 15279 – 2002 (Environmental Requirements, DTMF levels, etc.)

c) IDA Registration

i. IDS TS PSTN Requirements for Terminal Equipment connected to PSTN

d) India Telecom Registration TAC

i. TEC/EMI/TEL-001/01/FEB-09 Class B Digital Emissions Test

ii. IR/PST/01-01 SEP 2005 Terminal for connecting to PSTN

Africa

a) South Africa

i. TEC/EMI/TEL-001/01/FEB-09 Class B Digital Emissions Test

ii. ICASA Approval for Telecom Devices

3

Model Feature Overview

This chapter lists the features of each PowerSeries Neo alarm controller model.

Model

HS2016

- 6 on-board zones, expandable to 16 zones, using HSM2108 hardwired zone expanders
- 2 partitions
- 47 user codes + master code
- 47 proximity tags
- 16 wireless keys or panic pendants
- 500 event buffer
- 39 programmable zone types
- 46 programmable output options
- 4 holiday groups with 99 programmable schedules in each
- Expandable to 8 keypads
- Expandable to 16 wireless zones
- Expandable to 4 wireless sirens
- Expandable to 4 wireless repeaters
- 2 on-board programmable outputs
- Expandable to (4) 500mA programmable outputs using the HSM2204 high current expander
- Expandable to (16) 50mA programmable outputs using 2 HSM2208 output expanders
- Expandable to 3 power supply modules using the HSM2300

HS2032

- 8 on-board zones, expandable to 32 zones using 3 HSM2108 hardwired zone expanders
- 4 partitions
- 71 user codes + master code
- 71 proximity tags
- 32 wireless keys or panic pendants
- 500 event buffer
- 39 programmable zone types
- 46 programmable output options
- 4 holiday groups with 99 programmable schedules in each
- Expandable to 8 keypads
- Expandable to 32 wireless zones
- Expandable to 8 wireless sirens
- Expandable to 8 wireless repeaters
- 2 on-board programmable outputs
- Expandable to (4) 500mA programmable outputs using HSM2204 high current expanders
- Expandable to (32) 50mA programmable outputs using 4 HSM2208 output expanders
- Expandable to 3 power supply modules using HSM2300

HS2064

- 8 on-board zones, expandable to 64 zones using 7 HSM2108 hardwired zone expanders
- 8 partitions
- 94 user codes + master code
- 94 proximity tags
- 32 Wireless keys or panic pendants
- 500 event buffer
- 39 programmable zone types

- 46 programmable output options
- 4 holiday groups with 99 programmable schedules in each
- Expandable to 8 keypads
- Expandable to 64 wireless zones
- Expandable to 8 wireless sirens
- Expandable to 8 wireless repeaters
- 4 on-board programmable outputs
- Expandable to (12) 500mA programmable outputs using HSM2204 high current expanders
- Expandable to (64) 50mA programmable outputs using 8 HSM2208 output expanders
- Expandable to 3 power supply modules using HSM2300

HS2128

- 8 on-board zones, expandable to 64 zones using 15 HSM2108 hardwired zone expanders
- 8 partitions
- 94 user codes + master code
- 94 proximity tags
- 32 Wireless keys
- 1000 event buffer
- 39 programmable zone types
- 46 programmable output options
- 4 holiday groups with 99 programmable schedules in each
- Expandable to 16 keypads
- Expandable to 128 wireless zones
- Expandable to 16 wireless sirens
- Expandable to 8 wireless repeaters
- 4 on-board programmable outputs
- Expandable to (16) 500mA programmable outputs using 4 HSM2204 high current expanders

- Expandable to (128) 50mA programmable outputs using 16 HSM2208 output expanders
- Expandable to 4 power supply modules using HSM2300

Corbus

The Corbus uses an RS-485 serial cable, without requiring termination, and can support: “Home Run”, “Star”, and “Daisy Chain” wiring types. It is also capable of supporting the transmission of visual verification frames to the control panel.

4

System Performance

This chapter identifies the system performance for each of the PowerSeries Neo alarm controller models: HS2016/ HS2032/ HS2064/ HS2128.

Model

HS2016

This model supports six onboard, fully supervised programmable zones. It has an integrated power supply and a supervised digital alarm communicator, and includes auxiliary power for powering security detection devices. A programmable switch auxiliary output is used for 2 and 4-wire smoke detectors. The controller supports two programmable outputs, which can be programmed as general purpose outputs.

HS2032

This model supports eight onboard, fully supervised programmable zones. It has an integrated power supply and a supervised digital alarm communicator, and includes auxiliary power for powering security detection devices. A programmable switch auxiliary output is used for 2 and 4-wire smoke detectors. The controller supports two programmable outputs, which can be programmed as general purpose outputs.

HS2064/HS2128

These models support eight onboard, fully supervised programmable zones. They have an integrated power supply and a supervised digital alarm communicator, and include auxiliary power for powering security detection devices. A programmable switch auxiliary output is used for 2 and 4-wire smoke detectors. The controller supports four programmable outputs, which can be programmed as general purpose outputs.

Zone Expansion

HS2016

This model supports 16 hardwired or wireless zones. The controller is expandable to a maximum of 16 zones, by adding 1 HSM2108 hardwired 8 zone expansion module, or an HSM2HOST wireless expansion module. They are connected to the controller via a supervised 4-wire power/communication bus.

HS2032

This model supports 32 hardwired or wireless zones. The controller is expandable to a maximum of 32 zones, by adding 3 HSM2108 hardwired 8 zone expansion modules, or an HSM2HOST wireless expansion module. They are connected to the controller via a supervised 4-wire power/communication bus.

HS2064

This model supports 64 hardwired or wireless zones. The controller is expandable to a maximum of 64 zones, by adding 7 HSM2108 hardwired 8 zone expansion modules, or an HSM2HOST wireless expansion module. They are connected to the controller via a supervised 4-wire power/communication bus.

HS2128

This model supports 128 hardwired or wireless zones. The controller is expandable to a maximum of 128 zones, by adding 15 HSM2108 hardwired 8 zone expansion modules, or an HSM2HOST wireless expansion module. They are connected to the controller via a supervised 4-wire power/communication bus.

System Keypads

HS2016/ HS2032/ HS2064

These models support up to eight hardwired or wireless keypads. LED, alphanumeric LCD or fixed ICON LCD keypads are supported in any combination. LCD and ICON keypads with integrated proximity tag support are also available. The keypads include “Armed”, “Ready”, “Trouble” and “AC” indication LEDs, as well as five programmable function keys and three keypad activated alarm buttons. Keypads can operate in Power Save mode in the event of a power failure.

HS2128

This model supports up to 16 hardwired or wireless keypads. The system supports LED, alphanumeric LCD or fixed ICON LCD keypads in any combination. LCD and ICON keypads with integrated proximity tag support are also available. The keypads include "Armed", "Ready", "Trouble" and "AC" indication LEDs, as well as five programmable function keys and three keypad activated alarm buttons. Keypads can operate in Power Save mode in the event of a power failure.

ULC Fire Monitoring and Reporting

The system can be expanded to provide remote reporting of fire alarm system status, simultaneously over two paths. It does this using either a dual digital dialer (subject to approval by the local authority having jurisdiction), a combination of digital dialer and cellular, digital dialer and IP, or cellular and IP communication paths. The alarm communicators are fully supervised and automatically report troubles and alarm signals to the signal receiving center.

Alternate Reporting Methods

The system is capable of reporting all alarms, as well as trouble and system status information, using one of the following options: dual digital alarm communicators (Cellular and IP), a cellular transmitter, or an internet (IP) communicator.

Central Station Reporting

The system provides Contact ID and SIA reporting formats, and is capable of being programmed to call up to four telephone numbers. The system is programmable for split reporting, so that alarms/restorals, openings/closings, and miscellaneous events can be sent to different telephone numbers or communication paths. The system can report an account code for each partition and a separate account code for non-partition (system) events.

Programmable Outputs

HS2016

This model is capable of including up to 22 programmable outputs. Using the high current output module, (4) 500mA programmable outputs may be added, and using two low current output modules, (16) 50mA programmable outputs can be added. These modules can be located anywhere on the 4-wire communication

bus. The high current output module includes an integrated power supply, battery charger and supply, and up to 1.0A of auxiliary power at 12VDC.

HS2032

This model is capable of including up to 38 programmable outputs. Using the high current output module, (4) 500mA programmable outputs may be added, and using four low current output modules, (32) 50mA programmable outputs can be added. These modules can be located anywhere on the 4-wire communication bus. The high current output module includes an integrated power supply, battery charger and supply, and up to 1.0A of auxiliary power at 12VDC.

HS2064

This model is capable of including up to 80 programmable outputs. Using three high current output modules, (12) 500mA programmable outputs can be added, and using eight low current output modules, (64) 50mA programmable outputs can be added. These modules can be located anywhere on the 4-wire communication bus. The high current output module includes an integrated power supply, battery charger and supply, and up to 1.0A of auxiliary power at 12VDC.

HS2128

This model is capable of including up to 148 programmable outputs. Using four high current output modules, (16) 500mA programmable outputs can be added, and using 16 low current output modules, (128) 50mA programmable outputs can be added. These modules can be located anywhere on the 4-wire communication bus. The high current output module includes an integrated power supply, battery charger and supply, and up to 1.0A of auxiliary power at 12VDC.

System Software

The base panel comes complete with all of the software to implement every system feature and to allow for the addition of every expansion or functional module without changes or additions to the basic software.

System Programming

The system is fully programmable, via the keypads, and also allows event buffer viewing, via the alphanumeric LCD keypads.

Separate PC based upload/download software provides the ability to fully program the system and to read all current system programming, including the event

buffer. The system provides a connector (PC-link 1) on the base panel to allow for local upload/download operations and is capable of being used remotely, over telephone lines or the Internet (IP network). The system provides a separate telephone number that can be used for this remote upload/download operation. Remote upload/download access is controllable by the user to prevent unauthorized access.

All system programming is maintained in non-volatile memory, so that program information is maintained, even if all AC and battery power is off.

User Codes

HS2016

This model provides up to 47 user codes, plus a master code, which is selectable as either four or six digits. User codes are assignable to one or multiple partitions.

HS2032

This model provides up to 71 user codes, plus a master code, which is selectable as either four or six digits. User codes are assignable to one or multiple partitions.

HS2064/HS2128

These models provide up to 94 user codes, plus a master code, which is selectable as either four or six digits. User codes are assignable to one or multiple partitions.

Partitions

HS2016

This model is programmable for up to two fully independent partitions, each of which has its own account code. Keypads are assignable as "partition" keypads or as "global" keypads. Each zone in the system is assignable to one or more partitions.

HS2032

This model is programmable for up to four fully independent partitions, each of which has its own account code. Keypads are assignable as "partition" keypads or as "global" keypads. Each zone in the system is assignable to one or more partitions.

HS2064/HS2128

These models are programmable for up to eight fully independent partitions, each of which has its own account code. Keypads are assignable as "partition" keypads or as "global" keypads. Each zone in the system is assignable to one or more partitions.

Supervision

Each zone in the system is supervised, using single EOL or DEOL resistors of 5.6K. General system supervision includes loss of AC for the base panel and any remote module with its own AC input. Batteries for the base panel and all remote functional panels are supervised and short circuit protected. Each wireless input device is supervised, and the 4-wire communication bus is supervised for low voltage and the presence of each enrolled module and keypad. Digital alarm communicators are supervised for telephone line trouble and failures to communicate, and the system will report any cellular or IP network communication panel trouble.

Note: The Bell output is fully supervised.

False Alarm Prevention

The system includes the following false alarm prevention features:

- Silent exit delay
- Audible exit delay
- Arm/disarm bell squawk
- Audible exit fault
- Urgency on entry delay
- Swinger shutdown—programmable by zone
- Transmission delay by zone
- Rotating key press buffer for disarming
- Recent close code transmission
- Police code (cross zone) transmission
- Opening after alarm transmission

Automatic Arming/Disarming

The system allows for the automatic arming and disarming of partition(s) according to a programmable schedule. The system includes a method to automatically arm a partition, after there has been no activity for a predetermined period of time.

Temporary Zone Disabling/Bypassing

The system includes the following temporary zone disabling/bypassing features:

- Arm partition with zone violated and arm zone upon restore
- Manual bypass by user

Network Communications

The system is capable of network (LAN/WAN) and Internet communications. This is according to UL standards and encrypted line security, ULC A1-A4 communication line security levels for active systems, or P1-P3 for passive communication systems. The network communicator utilizes 128-bit AES encryption over 10/100 base-T networks and supports static or dynamic IP addressing. The IP communicator is capable of sending alarm events to a primary and backup IP receiver address. The Internet communicator performs full alarm reporting directly to the central monitoring station. It also performs full system configuration programming and the viewing of system statuses, using remote upload/download software, over an encrypted connection. For security purposes, the Internet communicator is capable of end-to-end supervision and hardwire substitution detection.

5

Mechanical, Electrical, and Environmental Specifications

This chapter identifies all mechanical, electrical (base panel), and environmental specifications.

Mechanical Specifications

Table 1 Cabinets

Cabinet	DSC Part Number	Dimensions	Description
PC5003C	31000104	L=279mm H=293 mm D=77mm	Removable door. Compatible with HS2016/2032/2064/2128 panels. Supports up to (3) HS2108 or (3) HS2208 modules. Supports (1) 7AH battery.
PC5001C	31000075 - Top 31000076 - Bottom	L=150mm H=121mm D=37mm	Suitable for use with (1) HSM2208 or (1) HSM2108 module. Does not support DSC sealed lead acid batteries.
PC4003CS	31000084	L=218mm H=170mm D=64mm	Hinged door. Suitable for use with (2) HSM2208 and/or HSM2108 modules or (1) HS2204/HS2300 module. Supports 1.2AH batteries only.
PC500C	31000195	L=205mm H=229mm D=76mm	Removable door. Suitable for use with HS2016/2032/2064/2128 control panels, or HSM2204 modules. Not compatible with HSM2208 or HSM2108 modules. Supports (1) 7AH battery.

Cabinet	DSC Part Number	Dimensions	Description
PC4050C	31000166	L=294mm H=367 mm D=120mm	Beige in color. Hinged door. Suitable for use with HS2016/2032/2064/2128 panels and up to (3) HSM2204 or (3) HSM2300 modules in addition to the panel. Includes mounting holes for one 240V 50Hz AC transformer. Supports (2) 7AH batteries.
PC4050CR	31000128	L=294mm H=367 mm D=120mm	Red in color. Hinged door. Suitable for use with HS2016/2032/2064/2128 control panels and up to (3) HSM2204 or (3) HSM2300 modules in addition to the panel. Suitable for North American use only. 240V 50Hz AC transformers cannot be mounted inside this cabinet. Supports (2) 7AH batteries.
PC4050CAR	31000196	L=294mm H=367 mm D=120mm	Beige in color. Hinged door. Suitable for use with HS2016/2032/2064/2128 control panels and up to (3) HSM2204 or (3) HSM2300 modules. This cabinet includes an attack resistant door for Europe, secured using 17 screws, and has mounting holes for (1) 240V 50Hz AC transformer. Supports (2) 7AH batteries.

Electrical Operating Voltages

Communicator

- 9VDC to 14VDC

Hardwired Keypads

- 9VDC to 14VDC

Hardwired RF Keypads

- 9VDC to 14VDC

Zone Expanders

- 9VDC to 14VDC
  - Loop response timing as fast as 40ms or as slow as 500ms. By default, the loop response time for each zone is 250ms.

Output Module

- 9VDC to 14VDC

Power Supply/High-Current Output Expander

- 9VDC to 14VDC

Electrical Specifications (base panel)

Bell Output

a) 12VDC 700mA max. continuous rating (currently limited at 2 amps). Available only with standby battery connected.

b) PTC over current protected – self restoring

c) Steady, Pulsed, Temporal 3 fire, CO alarm cadences

d) Bell short detection (software + hardware)

AUX Output

a) 9.6VDC – 13.8VDC 700mA max. (North American version) or 500mA (International version)

b) Communications bus and on-board PGM outputs

PGM Outputs

a) All PGM outputs are open collector type outputs, and the PGM terminal will switch to ground (-) upon activation.

i. HS2016, HS2032

1. PGM 1 – 12VDC 50mA
2. PGM 2 – 12VDC 300mA

ii. HS2064, HS2128

1. PGM 1 – 12VDC 50mA
2. PGM 2 – 12VDC 300mA
3. PGM 3 – 12 VDC 50mA
4. PGM 4 – 12VDC 50mA

Corbus

a) 500/700mA max. (depending on the version) provided from the HS2016, HS2032, HS2064, and HS2128 main panel

b) Additional power is provided by the HSM2204 and HSM2300 modules

c) Minimum 22AWG non-shielded wire can be used

d) No wire run can exceed 1000 feet (305m) from the panel

e) No more than 3000 feet (915m) of wire may be used in total

Battery Charger

a) Selectable battery charging current (400/700mA) to charge 12V lead-acid batteries up to 14Ah capacity (compatible with 4Ah, 7Ah, and 14Ah batteries)

b) Standby battery capacity able to cover 4h, 12h, 24h

c) Battery charger is supervised for opens and is protected by a PTC over current device, which is self-restoring

Input Power

a) 16VAC, 40VA 50/60Hz

Environmental Specifications

Operating Environment

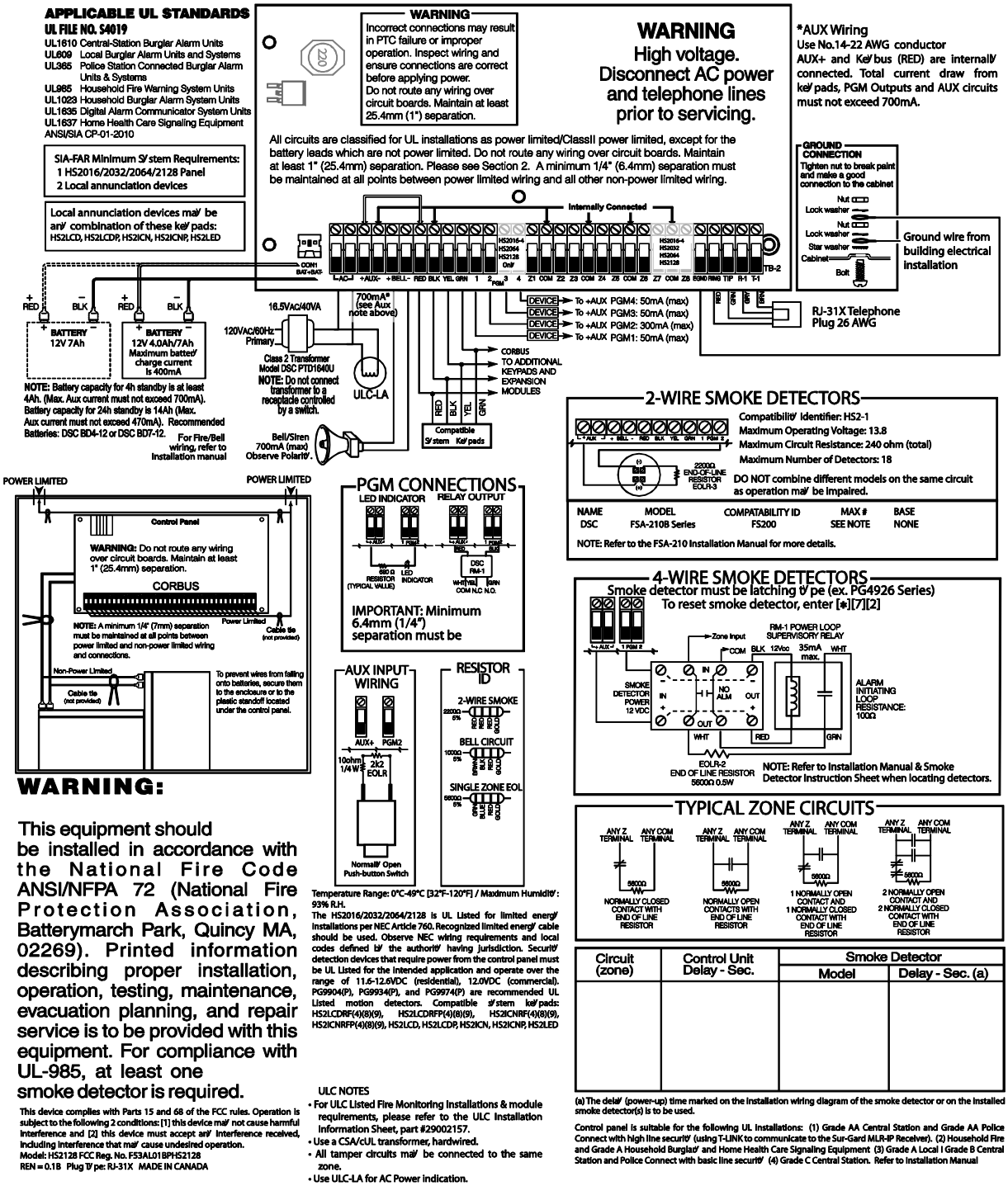
a) -10 ºC to 55 ºC

b) Max 93% relative humidity non-condensing

c) To be installed and used in non-hazardous locations only

Wiring Diagram (HS2016/2032/2064/2128)

HS2016/2032/2064/2128 UL/ULC Wiring Diagram



Circuit (zone)	Control Unit Delay - Sec.	Smoke Detector	
		Model	Delay - Sec. (a)

WARNING:

This equipment should be installed in accordance with the National Fire Code ANSI/NFPA 72 (National Fire Protection Association, Batterymarch Park, Quincy MA, 02269). Printed information describing proper installation, operation, testing, maintenance, evacuation planning, and repair service is to be provided with this equipment. For compliance with UL-985, at least one smoke detector is required.

This device complies with Parts 15 and 68 of the FCC rules. Operation is subject to the following 2 conditions: [1] this device may not cause harmful interference and [2] this device must accept any interference received, including interference that may cause undesired operation.
Model: HS2128 FCC Reg. No. F53AL01BPHS2128
REN = 0.1B Plug Type: RJ-31X MADE IN CANADA

Temperature Range: 0°C-49°C [32°F-120°F] / Maximum Humidity: 93% R.H.
The HS2016/2032/2064/2128 is UL Listed for limited energy installations per NEC Article 760. Recognized limited energy cable should be used. Observe NEC wiring requirements and local codes defined by the authority having jurisdiction. Security detection devices that require power from the control panel must be UL Listed for the intended application and operate over the range of 11.5-12.6VDC (residential), 12.0VDC (commercial). PG9904(P), PG9934(P), and PG9974(P) are recommended UL Listed motion detectors. Compatible system key pads: HS2LCDRF(4)(8)(9), HS2LCDRFP(4)(8)(9), HS2ICNRF(4)(8)(9), HS2ICNRFP(4)(8)(9), HS2LCD, HS2LCDP, HS2ICN, HS2ICNP, HS2LED

ULC NOTES
- For ULC Listed Fire Monitoring Installations & module requirements, please refer to the ULC Installation Information Sheet, part #29002157.
- Use a CSA/cUL transformer, hardwired.
- All tamper circuits may be connected to the same zone.
- Use ULC-LA for AC Power indication.

(a) The delay (power-up) time marked on the installation wiring diagram of the smoke detector or on the installed smoke detector(s) is to be used.

Control panel is suitable for the following UL installations: (1) Grade AA Central Station and Grade AA Police Connect with high line security (using T-LINK to communicate to the Sur-Gard MLR-IP Receiver). (2) Household Fire and Grade A Household Burglary and Home Health Care Signaling Equipment (3) Grade A Local / Grade B Central Station and Police Connect with basic line security (4) Grade C Central Station. Refer to Installation Manual

6

Execution

This chapter identifies the execution process, including installation, testing, and certification.

Installation

The system is installed according to the manufacturer's installation instructions and recommendations.

System Testing and Certification

The system is tested in accordance with the manufacturer's recommendations and industry standard practices.

This completes the Architecture and Engineering specification for the PowerSeries Neo Alarm Controller.

Again, for detailed information about the PowerSeries Neo Alarm Controller "wireless" component, refer to the document: *PowerSeries Neo 1.0 Wireless Host Architecture and Engineering Specification*.

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