

# PC1616/PC1832/PC1864 UL/ULC Wiring Diagram

## APPLICABLE UL STANDARDS

### UL FILE NO. S4019

UL1610 Central-Station Burglar Alarm Units  
UL609 Local Burglar Alarm Units and Systems  
UL365 Police Station Connected Burglar Alarm Units & Systems  
UL985 Household Fire Warning System Units  
UL1023 Household Burglar Alarm System Units  
UL1635 Digital Alarm Communicator System Units  
UL1637 Home Health Care Signaling Equipment  
ANSI/SIA CP-01-2000

SIA-FAR Min System Requirements:  
1 PC1616/1832/1864 Panel  
1 Local annunciation device

Local annunciation devices may be any combination of the keypads:  
PKP-LCD, PKP-ICN, PK5500, PK5501, PK5508, PK5516

**BATTERY**  
12V 7Ah  
NOTE: Battery capacity for 4h standby is at least 4Ah. Battery capacity for 24h standby is 14Ah (Max. Aux current must not exceed 470mA). Recommended Batteries: DSC BD4-12 or DSC BD7-12.

**BATTERY**  
12V 4.0Ah/7Ah  
Maximum battery charge current is 400mA

NOTE: Do not connect transformer to a receptacle controlled by a switch.

For Fire/Bell wiring refer to Observe Polarity Reference Manual

16.5VAC/40VA  
Class 2 Transformer  
Model DSC PTD1640U

ULC-LA

550mA\* (see aux note above)

KEYBUS TO ADDITIONAL KEYPADS AND EXPANSION MODULES

Compatible System Keypads

PC1864 Only

PC1832 Only

PC1864 Only

PC1832 Only

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PC1864 Only

**WARNING**  
Incorrect connections may result in PTC failure or improper operation. Inspect wiring and ensure connections are correct before applying power. Do not route any wiring over circuit boards. Maintain at least 25.4mm (1") separation.

All circuits are classified for UL installations as power limited/ClassII power limited, except for the battery leads which are not power limited. Do not route any wiring over circuit boards. Maintain at least 1" (25.4mm) separation. Please see Section 2. A minimum 1/4" (6.4mm) separation must be maintained at all points between power limited wiring and all other non-power limited wiring.

**WARNING**  
High voltage.  
Disconnect AC power and telephone lines prior to servicing.

**\*AUX Wiring**  
Use No.14-22 AWG conductor. AUX+ and Keybus (RED) are internally connected. Total current draw from keypads, PGM Outputs and AUX circuits must not exceed 700mA.

**GROUND CONNECTION**  
Tighten nut to break paint and make a good connection to the cabinet.  
Lock washer  
Nut  
Lock washer  
Star washer  
Cabinet  
Bolt  
Ground wire from building electrical installation

RJ-31X Telephone Plug 26 AWG

NOTE: For ULC fire monitoring, please refer to the PC5700 Installation Instructions

## 2-WIRE SMOKE DETECTORS

Compatibility Identifier: PC18-1  
Maximum Operating Voltage: 13.8 Vdc  
Maximum Circuit Resistance: 24  $\Omega$  (total)  
DO NOT combine different models on the same circuit as operation may be impaired.

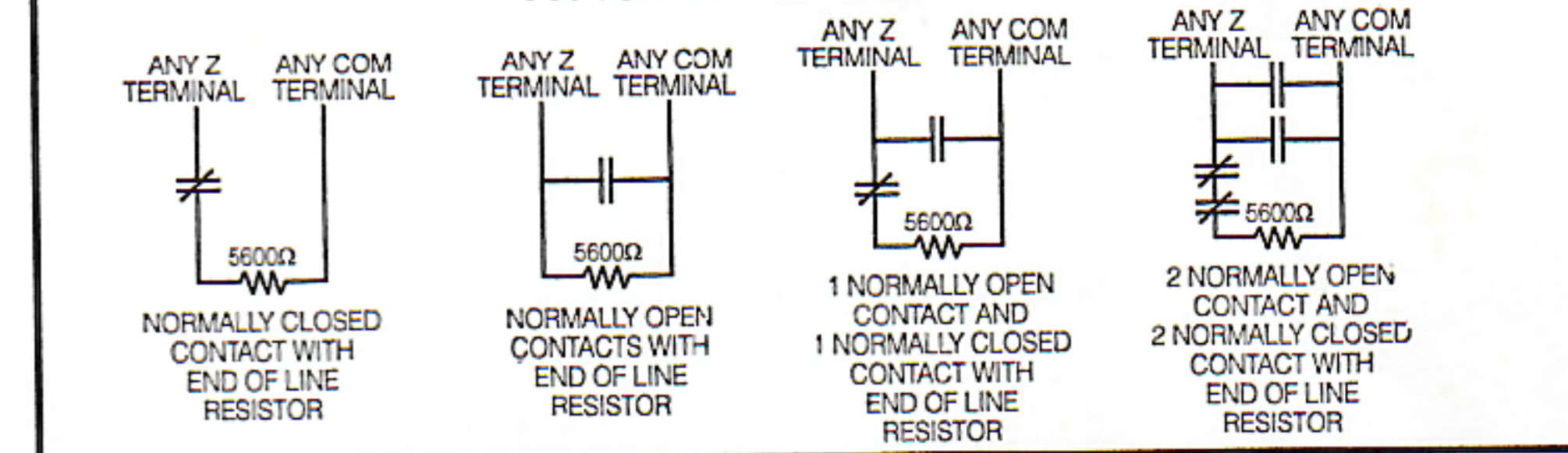
NAME	MODEL	COMPATIBILITY ID	MAX #	BASE
DSC	FSA-210B Series	FS200	SEE NOTE	NONE

NOTE: Refer to the FSA-210 Installation Manual for more details.

## 4-WIRE SMOKE DETECTORS

Smoke detector must be latching type (ex. DSC FSA-410B Series)  
To reset smoke detector, enter [\*][7][2]  
RM-1/RM-2 POWER LOOP SUPERVISORY RELAY  
35mA max.  
ALARM INITIATING LOOP RESISTANCE: 100 $\Omega$   
NOTE: Refer to Installation Manual & Smoke Detector Instruction Sheet when locating detectors.

## TYPICAL ZONE CIRCUITS



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

(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:

Installation Type	Signaling Means
Local Mercantile	DACT, PSDN (OT)
Central Station (Burglary)	PSDN Standard Line Security
Police Station Connected (Burglary)	PSDN Encrypted Line Security

**Temperature Range:** 0°C-49°C [32°F-120°F] / **Maximum Humidity:** 85% R.H.  
For detailed installation and operating instructions, refer to the Installation Guide #29007916, and the User Manual #29007864. The PC1616/PC1832/PC1864 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 11.6-12.6VDC (residential), 12.0VDC (commercial). The DSC Bravo Series are recommended UL Listed motion detectors. Compatible system keypads: PC5508Z, KP5508Z, PC5516Z, KP5516Z, PC5532Z, KP5532Z, LCD5500Z, KP5500Z, LCD5501, LED5501, PKP-LCD, PKP-ICN, PK5500, PK5501, PK5508, PK5516, RPK5500-433, RPK5501-433, RPK5508-433, RPK5516-433.

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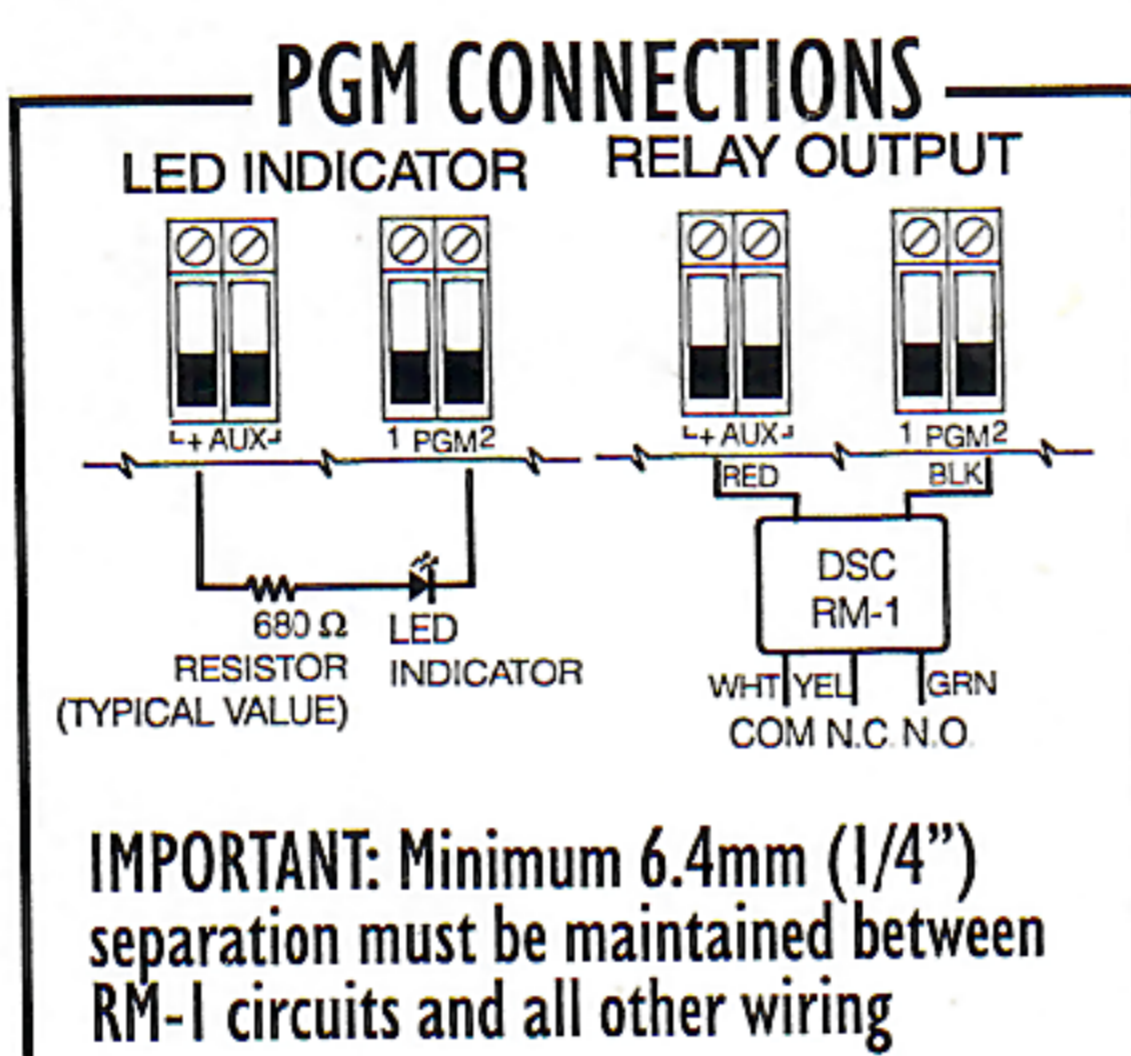
**WARNING:** Not to be removed by anyone except occupant. This equipment should be installed in accordance with the National Fire Code ANSI/NFPA 72 (National Fire Protection Association, Batterymarch Park, Quincy MA, 02269). Printed information describing proper installation, operation, testing, maintenance, evacuation planning, and repair service is to be provided with this equipment. For compliance with UL-985, at least one hardwired 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: PC1864 FCC Reg. No. F53AL01BPC1864  
Model: PC1832 FCC Reg. No. F53AL01BPC1832  
Model: PC1616 FCC Reg. No. F53AL01BPC1614  
REN = 0.1B Plug Type: RJ-31X MADE IN CANADA

## 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.



IMPORTANT: Minimum 6.4mm (1/4") separation must be maintained between RM-1 circuits and all other wiring

