



UL 1981

STANDARD FOR SAFETY

Central-Station Automation Systems

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UL Standard for Safety for Central-Station Automation Systems, UL 1981

Third Edition, Dated October 29, 2014

Summary of Topics

This new edition of ANSI/UL 1981 is being published as an American National Standard.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated January 10, 2014 and May 30, 2014.

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The requirements in this Standard are now in effect, except for those paragraphs, sections, tables, figures, and/or other elements of the Standard having future effective dates as indicated in the note following the affected item. The prior text for requirements that have been revised and that have a future effective date are located after the Standard, and are preceded by a "SUPERSEDED REQUIREMENTS" notice.

The following table lists the future effective dates with the corresponding reference.

Future Effective Date	Reference
April 29, 2016	Paragraphs 6.2.6, 6.2.7, 10.2.1, 10.2.2, 11.1.9, , 14.2.1, 14.2.2, and 17.2 and Sections 12 and 13



OCTOBER 29, 2014

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ANSI/UL 1981-2014

UL 1981

Standard for Central-Station Automation Systems

Prior to the first edition, the requirements for the products covered by this standard were included in the Standard for Central-Station Burglar-Alarm Units, UL 1610.

First Edition – October, 1994

Second Edition – June, 2003

Third Edition

October 29, 2014

This ANSI/UL Standard for Safety consists of the Third Edition.

The most recent designation of ANSI/UL 1981 as an American National Standard (ANSI) occurred on October 27, 2014. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 These requirements cover the design, manufacture, implementation, and support of automation system units and accessories intended to be used in central-stations and proprietary stations for the reception, processing, dispatch, responses, and record keeping of property protection and life safety signals. Automated monitoring systems are a combination of computerized automation software and subsystems, including LAN/WAN network communications under control of the central-station. The monitoring system units and accessories and subsystems provide all the monitoring, control, communications audible indications and visual display functions of the system and shall meet all applicable requirements as specified by this Standard.

1.2 These requirements also cover special considerations for proprietary and national industrial security system application software.

1.3 These requirements do not cover hardware receiver units that are evaluated under separate equipment standards such as the Standard for Proprietary Burglar Alarm Units and Systems, UL 1076, the Standard for Central-Station Burglar Alarm Units, UL 1610, the Standard for Control Units and Accessories for Fire Alarm Systems, UL 864, and the Standard for Digital Alarm Communicator System Units, UL 1635.

1.4 These requirements do not cover the building needed to house the automation system, the staffing requirements, the power system(s), wiring expectations, spare parts, support policies, the specifics required by the Monitoring Equivalent Weight (MEW) factor, and any other requirement that falls outside the specifics of this automation standard. This information can be found within the latest edition of Standard for Central-Station Alarm Services, UL 827.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components used in the products covered by this Standard.

2.2 A component is not required to comply with a specific requirement that:

- a) Involves a feature or characteristic not required in the application of the component in the product covered by this Standard; or
- b) Is superseded by a requirement in this Standard.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 When specific components are incomplete in construction features or restricted in performance capabilities, such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

5 Glossary

5.1 For the purpose of this standard the following definitions apply.

5.2 ACTIVE SYSTEM – A system that transmits one or both of the following signals to the central-station on a regular basis:

- a) A signal that the system has been disarmed and the protection removed (commonly referred to as "opened"); or
- b) A signal that the system has been armed and the protection activated (commonly referred to as "closed").

If an alarm system sends opening and closing (disarm and arm) signals, it is considered to be an active system. Supervisory check-in signals transmitted from a system does not make it an active system.

5.3 ALARM-MONITORING SOFTWARE – The sequence of instructions that tells the hardware how to handle the incoming signals and instructions from the keyboard. The alarm-monitoring software controls how the messages are stored in memory and how they are displayed at the operator station and printers.

5.4 ALARM SIGNAL – A signal from an alarm system which requires immediate action. A signal, such as the alarm initiated from a manual box, a water-flow switch, an automatic fire detector, an intrusion detection unit, hold-up initiating device, door contact, or tamper switch, a condition that the software has determined constitutes an alarm, that indicates an emergency, fire or burglary condition requiring immediate action.

5.5 AUTOMATION SYSTEM – A computer system that consists of hardware and software components. These components include the alarm-monitoring software supplied by the automation system developer, the operating system, and programming languages, required to make the system operational. An automation system may be configured as a computer system that is directly connected to hardware based central-station receivers, internal software based receivers, or is connected to remote receivers located in central-stations other than the one where the automation system is located. It is used to automatically process change-of-status signals such as alarm, trouble, supervisory, disarming and arming (i.e. opening and closing), and similar signals that it receives from the central-station receiving equipment. See the Standard for Central-Station Alarm Services, UL 827.

5.6 AUTOMATION SYSTEM HARDWARE COMPONENT – A separate removable/interchangeable section of the system including but not limited to any associated power supply; a supervisory module (watchdog timer) for the disk drive, processor, or primary power, and similar components; operator station; printer; interface equipment; and similar equipment.

5.7 AUTOMATION SYSTEM SOFTWARE DEVELOPER – A company that develops the alarm monitoring software and specifies the minimum hardware platform specifications required for the combination of hardware and software to process signals from a subscriber's account in accordance with:

- a) The National Fire Alarm and Signaling Code, NFPA 72;
- b) The Standard for Central-Station Alarm Services, UL 827;
- c) The Standard for Proprietary Burglar Alarm Units and Systems, UL 1076;
- d) The Standard for Installation and Classification of Burglar and Holdup Alarm Systems, UL 681; and
- e) The requirements of this Standard.

5.8 AUTOMATION SYSTEM'S ALARM SYSTEM DATA BASE – The system data base includes alarm system (account) information entered into the computer by central-station personnel. This information includes names and addresses of subscriber accounts; disarming and arming (opening and closing) schedules for individual alarm systems (accounts); dispatch information such as subscribers' phone numbers, police department phone number.

5.9 BANDWIDTH – The data transfer capacity of a network. It is measured in bits per second.

5.10 BATCH ALARM CLEAR – A process or utility that allows blanket clearing of alarms by type, geographical area, and/or priority.

5.11 CENTRAL-STATION – A building, distributed group of buildings, or a distributed group of enclosed areas within a building that is occupied by the alarm service company that operates the central station, other businesses that are owned, and controlled by the alarm service company and which houses an operating room and equipment used to provide central-station service to protected properties.

5.12 CENTRAL STATION PERSONNEL – Any employee of the central station who has the authority and access level to do what is described under specific paragraphs of this Standard.

5.13 CENTRAL-STATION SERVICE – The use of a system or a group of systems in which the operation of circuits and devices at a protected property are signaled to, recorded in, and supervised from a central station having trained operators who, upon receipt of a signal, take such action as required by the nature of the signal received.

5.14 CERTIFICATED SYSTEM – A system that is in compliance with the Standard for Installation and Classification of Burglar and Holdup Alarm Systems, UL 681, the Standard for Central-Station Alarm Services, UL 827; the Standard for Proprietary Burglar Alarm Units and Systems, UL 1076; the Standard for National Industrial Security Systems, UL 2050; or the National Fire Alarm and Signaling Code, NFPA 72 and that has a current certificate issued.