CAN/ULC-S319-05 Le 16 juin 2008
CAN/ULC-S319

BULLETIN D'ACCRÉDITATION N^{o} 2008-11

À l'attention des abonnés au service d'inscription ULC pour les panneaux de contrôle d'accès, ALVYC

Abonnés au service d'inscription cUL pour divers appareils de signalisation certifiés pour le Canada, UEHX7

Objet : Annonce d'un nouveau programme d'accréditation pour les systèmes électroniques de contrôle d'accès au Canada

Le présent bulletin vise à informer les abonnés des services UL et ULC de l'instauration d'un nouveau service d'accréditation et de référencement pour les **systèmes électroniques de contrôle d'accès** conformément aux exigences énoncées dans la norme CAN/ULC-S319-05. Il fait suite à notre Bulletin d'accréditation n^{o} 2007- 32, daté du 15 novembre 2007.

Comme il a été indiqué dans le précédent bulletin d'accréditation, le Canada a adopté le document susmentionné en tant que Norme nationale du Canada. L'adoption de la norme CAN/ULC-S319-05 en tant que document de référence a été proposée dans le cadre de la révision imminente du modèle de code du bâtiment canadien.

UL et ULC ont l'honneur d'annoncer l'instauration d'un nouveau service d'accréditation et de référencement pour les **systèmes électroniques de contrôle d'accès** fondé sur les exigences imposées en vertu de la première édition de la norme CAN/ULC-S319-05, Systèmes électroniques de contrôle d'accès. Offert à partir du 16 juin 2012, ce nouveau service doit se substituer aux services actuellement offerts suivants :

> Underwriters Laboratories Inc. propose un programme canadien d'accréditation pour les panneaux électroniques de contrôle d'accès évalués conformément à la norme CSA-C22.2 N^{o} 205, *Appareillage de signalisation*. Les panneaux électroniques de contrôle d'accès qui répondent à ces exigences sont répertoriés dans la catégorie de produits Divers appareils de signalisation certifiés pour le Canada, UEXH7. Ces produits sont autorisés à porter la marque d'inscription cUL.

Underwriters' Laboratories of Canada
7 Underwriters Road, Toronto, ON M1R 3B4 Canada
T:: 416.757.3611 / F:: 416.757.8727 / W:: ulc.ca

Les Laboratoires des assureurs du Canada proposent actuellement un programme d'accréditation pour les panneaux électroniques de contrôle d'accès évalués conformément à la norme sur les unités de système de contrôle d'accès, UL 294. Les panneaux électroniques de contrôle d'accès qui satisfont à ces exigences sont répertoriés dans la catégorie de produits Unités de système de contrôle d'accès, ALVYC. Ces produits sont autorisés à porter la marque ULC.

Comme nous l'avions mentionné dans notre bulletin du 15 novembre 2007, UL et ULC mettront à profit la période transitoire pour mener une revue des dossiers industriels (RDI) sur tous les produits certifiés cUL et ULC actuellement répertoriés. Tous les détails concernant la RDI cUL et ULC seront communiqués ultérieurement dans une note distincte.

En outre, nous avons joint au présent bulletin un exemplaire du sommaire des exigences élaboré afin d'exposer de façon détaillée les différences entre les normes UL 294 et CAN/ULC-S319, en partant du principe que les produits sont, à l'heure actuelle, conformes à la norme UL 294. Ci-joint également, un exemplaire du Bulletin sur les normes de ULC fournissant des renseignements complémentaires à propos de certaines exigences techniques de la norme CAN/ULC-S319-05.

Les clients souhaitant poursuivre le référencement de leurs produits sont invités à déposer un nouveau dossier et à soumettre leurs produits à une nouvelle fois à l'examen et aux essais nécessaires afin d'en vérifier la conformité aux exigences imposées par la nouvelle norme.

Si vous avez des questions portant sur le sujet abordé ci-dessus, veuillez communiquer avec M. Normand Breton, Ingénieur en chef, par téléphone au numéro 416 757-3611, poste 61238, ou par courriel à l'adresse normand.breton@ca.ul.com.

LABORATOIRES DES ASSUREURS DU CANADA

M. Normand Breton, ing.
Directeur de la réglementation et
Ingénieur en chef – Canada

UNDERWRITERS LABORATORIES INC.

William R. Carney
Directeur, Ingénieur en chef pour l'international
Programmes d'accréditation nord-américaine
Bureau des programmes d'accréditation

SUMMARY OF REQUIREMENTS

The following is a brief summary of the new paragraphs in the Standard for Electronic Access Control Systems, ULC CAN-ULC-S319-05, which have a future Effective Date of June 16, 2012 and the action that may be required to determine compliance.

Products bearing the ULC mark, with CCN number ALVYC, must comply with this new standard on the effective date as mentioned above.

In addition to the requirements below, if a monitoring console as defined in CAN/ULC-S319-05 is employed as part of the overall access control system, please review CAN/ULC-S319-05 in its entirety and note the attributes by Class in Appendixes A thru G

Paragraphs	General Subject and Comment
1.2	This standard defines four levels of protection with Level I (lowest level-Class I equipment) to Level IV (highest-Class IV equipment). Manufacturer is required to specify the Level of protection (Class I to IV) of the product. The information needs to be either marked on the product or provided in the instruction manual. Action: Review marking and instruction manual.
3.2	Access control systems shall have the means to indicate the current programming logic code version by either being visibly marked on the product or shall be capable of being displayed on a visual annunciator provided as part of the unit. Action: provide one of the above means to identify the programming logic code for service technicians and other authorized personnel.
5.1.7.1	Table 4 - Class I systems shall retain preset rules and logged events for a min of 96 hrs after loss of power. Action: testing required
5.4.1.1	Table 10 - Class I products employing biometrics shall have a maximum authentication time of 1 second when using biometric equipment, as well as False Acceptance and False Rejection rate limits. Action: testing required
5.4.1.1	Table 10 - Class I products employing biometrics shall have less than 10% for False Acceptance and less than 0.1% for False Rejection rate limits. Action: testing required

Paragraphs	General Subject and Comment
5.4.2.2	Pass-codes used with keypads shall have a minimum number of 10,000 different pass-codes in the system. (Class 1) Action: testing required
5.4.1.1, 5.4.3 (all)	Electronic access control equipment that utilizes a token as a means of recognition shall comply with all of 5.4.3. Action: testing required if a token is utilized.
5.4.1.1, 5.4.4 (all)	Electronic access control equipment that utilizes biometrics as a means of recognition shall comply with all of 5.4.4. Action: Defered.
5.4.5 (all)	Systems that employ motion detectors, momentary contact switches, and/or touch sensitive devices installed at the portal shall comply with all applicable subsections of 5.4.5. Action: testing required if motion detectors, momentary contact switches, and/or touch sensitive devices are installed at the portal.
5.5.2.2, 5.5.2.6	Readers that employ an audible signal device, the sound output shall produce a minimum of 70dB up to a max of 100dB at 1 meter while at rated input. Action: test required on readers that employ an audible signal device
5.4.5.2.7, 5.5.2.2	Request-to-exit devices that employ an audible signal device, the sound output shall produce a minimum of 70dB up to a max of 100dB at 1 meter while at rated input. Action: test required on products that employ an audible signal device
5.6 (all)	Access Point Actuators for portal locking devices. Action: testing required
7.1.3	An electronic access control system, which radiates or utilizes radio frequencies, shall be shown to comply with Industry Canada ICES-003. Action: require to check marking or product literature for ICES-003 compliance.
7.2.4 (Exception)	If product under test receives power from a separate source, then the product must be tested at all voltage extremes. Action: testing required to be conducted while at each extreme of rated voltage or extremes of voltage range.
7.2.6	During Normal Operation, product under test cannot result in false operation or false alarm. Action: testing is required to confirm that product does not result in unauthorized access or false alarm.

Paragraphs	General Subject and Comment
7.3	Current Protection Test – Field-wiring terminals are to be intentionally reversed (in pairs or individually) or connected to any terminal adjacent to the proper one. Action: testing required, unless product is marked with a warning of consequences for improper connections and if polarity is critical, the terminals are marked with proper polarity connections.
7.4.2	Input Measurement Test – In addition to rated inputs as specified in Table 21, measurements shall be recorded at all voltage extremes as stated in the 7.2.4 Exception. Action: testing required to record measurements while at each extreme of rated voltage or extremes of voltage range.
7.5.2	Output Measurement Test (non power-limited and power limited) – the output voltages must be within 85% and 110% of marked output rating during the following conditions: 1) rated input power 2) 85% and 110% primary power 3) 85% and 110% of secondary power During each condition above, the output circuit and system shall be connected to no load (minimal load). During each condition above, the output circuit and system shall be connected to maximum load. Action: testing required
7.5.3	Output Measurement Test (power-limited) – For products that employ float type battery chargers, the required measurements shall be recorded when both primary and secondary power sources are connected. For products that employ trickle type battery charger, the required measurements shall be recorded first with primary power only, then repeated with secondary power only. An instantaneous measurement of I max shall be recorded when the output is shorted. Action: testing required per 7.5.3
7.6.2	A malfunction of the power supply or a loss of both primary power and standby battery capability shall result in an *alert* or trouble signal. Action: testing is required.
7.6.3	In lieu of supervising the battery or the capability of electronic components, a manual test feature that effectively tests the battery and/or components shall be provided as part of the operation of the system.

Paragraphs	General Subject and Comment
7.7	Standby Power test – secondary power is required for all access control systems. Secondary power can be provided by rechargeable batteries (7.7.2) or nonrechargeable batteries (7.7.4.8). Standby time = 30 minutes Action = testing is required. See 7.7.4.5 and 7.7.4.6
7.7.1.4	The battery shall be protected by noninterchangeable fuse or circuit breaker rated not less than 130% and no more than 200% maximum operating load on the battery or power limited per 7.5.3. Action: confirm product employs properly rated noninterchangeable overcurrent protection (fuse or circuit breaker).
7.7.1.5	The battery connections shall be marked with the respective battery power ratings including voltage, current, capacity (Ah), the number and type to be used or reference to a drawing that includes this information. Action: provide required marking at terminals or provide reference to drawing that contains the required text.
7.7.2.1	Rechargeable battery shall have sealed cells with spray-trap vents and shall be float or trickled charged. Vented batteries are also suitable for use per 7.7.2.4. Action: employ a battery that meets the description and utilize a float or trickle type battery charger.
7.7.2.2	Batteries are to be mounted/located to prevent contact with metal parts and if multiple batteries are employed, adjacent battery terminals shall not come in contact with each other. Access to batteries shall be readily available. Action: battery area/enclosure/housing shall be sufficient enough to arrange batteries in a fashion to satisfy the requirements.
7.7.2.3	A conditioning charge shall be limited so that battery gases shall not affect any part of the unit. Action: provide a charging limit to prevent excess release of gases that can affect the unit.
7.7.2.4	Metal enclosures used for housing vented rechargeable batteries shall be painted with 2 coats of acid-resistant and alkali-resistant compound or protected by baked enamel. Action: provide an enclosure that meets the above description when vented batteries are employed.

Paragraphs	General Subject and Comment
7.7.2.5	Cabinets that house liquid electrolyte batteries shall be constructed so the condition of the elements can be observed without disturbing the cells. Action: provide an enclosure that meets the above description when liquid electrolyte batteries are employed.
7.7.2.6	If batteries are housed with other electronic equipment, the batteries shall be located below the electronic equipment or arranged to reduce the risk of damage from battery leakage. Action: locate batteries in a manner that will not damage electronic equipment if leakage occurs.
7.7.2.7	1 - Specifications and calculations necessary to determine properly sized batteries to operate the control equipment shall be provided. 2 - The control equipment specifications must also provide details of charging method used so that the battery's manufacturing specification can be reviewed to determine compatibility. 3 - Battery charger shall provide a charging current under all conditions of intended use. Action 1 – provide documentation that contains specifications, information and calculations to determine battery size. Action 2 – provide documentation that identifies charging method employed. Action 3 – battery charger design shall provide a charging current in all states of control equipment.
7.7.2.8	The battery selected to comply with 7.7.2.7 shall also comply with the battery manufacturer's specifications regarding the rate of discharge and voltage cutoff to prevent damage to the battery. Action: the above criteria shall also appear in the 7.7.2.7 control equipment specifications to assist in determining a suitable battery.
7.7.2.9	When 2 or more batteries are employed, connected in series or parallel, the conditions of use shall provide for equalization of cells that aligns with the battery manufacturer's specifications. Action: the above criteria shall also appear in the 7.7.2.7 control equipment specifications to assist in determining a suitable battery.
7.7.2.10	The use of the battery shall be consistent with the battery manufacturer's specifications regarding position, temperature, and state-of-charge. Action: the above criteria shall also appear in the 7.7.2.7 control equipment specifications to assist in determining a suitable battery.

Paragraphs	General Subject and Comment
7.7.2.11	1 - Batteries that are susceptible to loss in capacity due to inactivity, the control equipment shall provide a means to cycle the battery to prevent loss in capacity. Or 2 - Provide a means to detect and annunciate loss in capacity. Action: the control equipment design shall provide a means to cycle the battery or detect loss in capacity if the battery employed is susceptible to loss due to inactivity.
7.7.2.12	1 - The conditions described in 7.7.2.10 and 7.7.2.11 shall appear as a warning in the installation instructions to prevent premature battery failure. 2 - The product shall be marked adjacent to the battery with either the battery type and estimated life or method of testing battery condition. Action 1: install instructions must contain warning precautions related to 7.7.2.10 and 7.7.2.11. Action 2: product must bear the required marking.
7.7.3.1	Compartments housing nonrechargeable batteries shall be constructed to prevent adjacent battery terminals from touching each other or a dead metal part. Action: products employing nonrechargeable batteries shall be constructed as required.
7.7.4.1	Access control system shall be provided with standby power for a minimum standby time of 30 minutes. Action = testing is required. See 7.7.4.5 and 7.7.4.6
7.7.4.2, 7.7.4.3	Neither loss nor restoration of commercial power shall adversely affect normal operation of the access control system. To determine compliance, the system commercial power is to be interrupted for 1 minute and restored for 1 minute for 10 cycles. Action = testing is required. See 7.7.4.5 and 7.7.4.6
7.7.4.5	After a 30-minute or greater power failure, the rechargeable batteries shall recharge to 85% of rated capacity within 24hrs. Action = testing is required. See also 7.7.4.6
7.7.4.6	To determine compliance with 7.7.4.1, commercial power shall be removed and the access control system shall be sustained for 30 minutes by fully charged batteries while introducing a entry request once every 5 minutes. Commerical power is to then be reconnected per 7.7.4.5 and then removed again while batteries are sustaining access control system operation for 30 minutes while introducing a entry request once every 5 minutes. Action: testing required

Paragraphs	General Subject and Comment
7.7.4.8	If standby power is provided by nonrechargeable batteries, provisions to test the condition of the batteries shall be provided. Action: product design must be able to test the condition of the batteries if nonrechargeable batteries are utilized as the secondary power source.
7.8.4	Undervoltage – Maximum impedance as specified in the installation instructions is to be connected to an initiating device circuit. If no impedance limitation is specified, then 100ohm impedance is to be employed on the initiating device circuit. Action: if current product does not specify max line impedance for initiating device circuit, 100ohms impedance will need to inserted on the IDC to ensure proper operation.
7.9.1.2	Overvoltage – While the product is being subjected to 110% of rated voltage, 0ohm line impedance is shall be employed on the initiating device circuit. Action: requires testing with 0 ohms employed on IDC.
7.9.2.1	Overvoltage – Portal locking devices, other than electrical coils used to provide the locking action or operate the locking mechanism, shall operate as intended while operating at 110% of rated voltage for 24hrs. Action: requires testing at worse case condition (locked or unlocked). Portal locking devices that comply with UL 1034 are not subject to this test. (similar to UL 1034 cl. 32.1)
7.9.2.2	Overvoltage – An electrical coil used to provide the locking action or operate the locking mechanism, shall operate as intended while operating at 125% of rated voltage for 24hrs. Action: requires testing at worse case condition. Portal locking devices that comply with UL 1034 UL 1034 are not subject to this test. (similar to UL 1034 cl. 32.2)
7.10.2	Variable Ambients – All portal locking devices shall comply with the outdoor conditioning as specified in 9.3.3. Action: testing required
7.11.1	Humidity – Products shall operate as intended during and after exposure to an environment consisting of 93% relative humidity at 32C. Action: testing required

Paragraphs	General Subject and Comment
7.12.1	Leakage Current on an accessible part shall not exceed 0.50mA for stationary or fixed products. Action: testing is required for stationary or fixed products because previous limits were not to exceed 0.75mA.
7.12.4	Leakage Current test now defines “simultaneously accessible” by the following criteria: 1) one hand contacting parts within 100mm by 200mm rectangle. 2) two hands contacting parts that are not more than 1800mm apart.
7.14.1.2	Overload – Portal locking devices shall operate as intended after 50 cycles. A cycle consists of: 1) releasing of the locking mechanism 2) opening the portal via a pneumatic or hydraulic ram or equivalent 3) close the portal with a size 3 or heavier duty hydraulic door closer or equivalent. 4) Engaging the locking mechanism Action: portal locking devices will need to be subjected to the cycling method described above which includes the test fixture as described in 7.1.4.
7.15.1.1	Endurance – Products shall operate as intended for 100,000 cycles. Action: testing is required for supplementary circuits which were initially subjected to only 6,000 cycles.
7.15.1.5	Endurance – Portal locking devices shall operate as intended after 100,000 cycles. A cycle consists of: 1) releasing of the locking mechanism 2) opening the portal via a pneumatic or hydraulic ram or equivalent 3) close the portal with a size 3 or heavier duty hydraulic door closer or equivalent. 4) Engaging the locking mechanism Action: portal locking devices will need to be subjected to the cycling method described above which includes the test fixture as described in 7.1.4.
7.15.1.6	Endurance – If the device is intended for more than one input voltage, the total number of cycles shall be divided equally among all possible input voltages. Action: testing required for products utilizing various input voltages.
7.16.2	Jarring – Figure 8 which depicts the test fixture now includes a steel plate which differs from previous test fixtures. Action: testing required

Paragraphs	General Subject and Comment
7.16.3	Jarring - Products that employ or provide sensitivity and or a range as a feature shall not vary more than 25% after being subjected to the Jarring test. Action: testing is required if the product provides some type of sensitivity feature.
7.17.1	Temperature Rise - Referring to Table 29, components shall not exceed a temperature rise of more than: Fuses = 25C Carbon resistors = 25C Wirewound resistors = 50C Other resistors = 25C Varnished cloth insulation = 25C Capacitors = 75% of manufacturer's rating and not more than 40C Conductors for field wiring circuits = 25C Surfaces normally contacted by the user in operating the unit (control knobs, push buttons, levers, etc.) = 40C both metallic & nonmetallic Surfaces subjected to casual contact by the user (enclosure, grille, or the like) = 40C Components that employ insulation systems when measured via change of resistance method. Class 105 = 75C Class 130 = 95C Action: testing required to confirm temperature rises comply with the lower limits specified. 10% of input zones (but not less than 3) need to be energized during the test.
7.17.9	Temperature rise test – products employing multiple zones, 10% of total zones, but no less than 3 zones are to be energized during the alert or intended operation. Action: testing required for products employing multiple zones, shall be configured with the required minimum loading specified.
7.20.2.1	Supply Line Transient – product shall not false alert/trouble. Action: test required confirming false Troubles or Alerts are not generated.
7.20.4.2	Input/Output Circuit Transient – product shall not false alert/trouble. Action: test required confirming false Troubles or Alerts are not generated.

Paragraphs	General Subject and Comment
7.21 (all)	Radio Frequency Interference – products shall not false alert/trouble and work as intended when subjected to conducted and radiated frequency interference sources. Action: testing required
7.22.1	AC Induction – product shall not false Alert/Trouble while being subjected to an induced voltage on each extended circuit. Action: test required confirming false Troubles or Alerts are not generated.
7.23	Polymeric Materials – polymeric materials used as an enclosure or for support of current carrying parts shall comply with the Polymeric Temperature and Flame test of this standard or with CSA 22.2 No. 0.17. Action: testing required if polymeric materials utilized are not in compliance with CSA 22.2 No. 0.17, or have not been evaluated to the Polymeric Temperature and Flame test in S319.
7.23.2 (all)	Polymeric Temperature test – see 7.23 Polymeric Materials
7.23.3 (all)	Polymeric Flame test – see 7.23 Polymeric Materials
7.24	Battery Replacement – battery connections shall withstand 10 cycles of removal and replacement from the battery terminals without reduction of the contact integrity. Action: 1) Testing required on Listed products that originally did not employ batteries as the secondary power. Provisions for battery connections is now needed for compliance with new requirements. 2) none, for currently Listed products that originally employed batteries as the secondary power.
7.30 (all)	Attack tests – Destructive & Nondestructive Action: 1) for currently Listed products a review of UL294 attack test results is required to verify if attack time was reduced to 2 minutes due to the local alarm. S319 requires an alert at the monitoring console. 2) No further action required if review of UL294 attack test results was conducted for 5 min.
7.31 (all)	Attack test for Portal Locking devices – Action: 1) If Listed product was also evaluated to UL1034, a review of UL1034 test results is required to ensure proper test level was

Paragraphs	General Subject and Comment
	used. Retest if device was tested at lower level. 2) Testing required if product was not subjected to UL1034 3) Manufacturer is required to specify the **Class of Protection** in product literature of portal locking devices. Table 30 and 31 indicates different test levels of static and dynamic strength for each class.
7.32	Inductive Kickback test – All products must be subjected to this test as applicable. Action: Testing required.
7.33	Static Discharge – All products must be subjected to this test as applicable. Action: testing required
7.34	Vibration test – All products must be subjected to this test as applicable. Action: Testing is required.
7.35	Corrosion – all indoor products, except for Access Control Units and Monitoring Console Equipment shall work as intended after being subjected to the specified corrosive atmosphere. Action: testing required
7.36	Stability – All products must be subjected to this test as applicable. Action: Testing is required for all products other than Access Control Units and Monitoring Console Equipments.
7.37	Evaluation of Conformal Coatings – All products must be subjected this to this evaluation as applicable. Action: Testing is required if conformal coating is used in lieu of full electrical spacings.
7.38	Marking Permanency – cement or adhesive materials shall comply with specified requirements in this standard or comply with CAN/CSA 22.2 No. 0.15. Action: a review of current adhesive material being utilized to confirm compliance with both UL969 and CAN/CSA 22.2 No. 0.15. Testing may be required or alternate vendor utilized that provides materials complying with both standards.
7.40, 5.4.1.1	Recognition Accuracy - Action: Testing is required for systems employing various types of recognition such as biometrics, token card readers, and keypads with pass-codes.

Paragraphs	General Subject and Comment
8	Ancillary Equipment – Action: none. Similar to requirements of “Accessory Equipment” in UL294.
9.1	Marking – Action: review is required. Product intended for indoor use shall be marked “For Indoor Use only”.
	OUTDOOR USE EQUIPMENT
9.2	Construction - Action: Construction review is required for portal locking devices that comply with UL1034. No action is required for other devices.
9.3.3	Variable Ambient – products shall operate as intended while being subjected to -40±2°C. Action: testing required only at the lower ambient because the high ambient conditioning is identical to UL294.
9.3.5	Corrosion – Products shall not be adversely affected after being exposed to salt spray, hydrogen sulphide, and sulphur dioxide-carbon dioxide Products shall also comply with the Dielectric Voltage Withstand test Salt Spray - Three samples of portal locking devices are required. One sample for other types of devices. Action: 1) Testing is required to portal locking devices that were tested per UL1034 only. 2) For devices that have been tested per UL294, previous test results need to be reviewed to verify normal operation and dielectric strength after the exposures. If normal operation test and dielectric withstand test were not conducted, retest is required.
Paragraphs	General Subject and Comment
9.3.8	Marking Permanency Outdoor Exposure – labels exposed to weather shall be subjected a cycling of water spray and ultraviolet rays consistent with Section 9.3.6 for 30 days and results must comply with 7.38.1.3, A, B, and C. Action: Testing required.

June 2, 2008

STANDARDS BULLETIN 2008-08

CAN/ULC-S319-05, Electronic Access Control Systems

FREQUENTLY ASKED QUESTIONS

The following *frequently asked questions* (*FAQ*) is being issued in response to a request for clarification on some of the testing protocol outlined in CAN/ULC-S319-05, Electronic Access Control Systems.

The responses have been endorsed by the ULC Committee on Security and Burglar Alarm Equipment and Systems, the ULC Subcommittee on Control Equipment, and the ULC Working Group on Access Controls.

Should you require any additional information, please contact Mahendra (Mike) Prasad at 416-757-5250 Ext. 61242 or email: mahendra.prasad@ca.ul.com

Yours truly,

G. Rae Dulmage

G. Rae Dulmage
Director, Standards Department & Government Relations Office

No.	Clause/Section	QUESTION	ANSWER
1	Section 1	Does the standard apply to computer equipment used in monitoring console?	Yes, the standard applies to computer equipment using monitoring console (i.e. computer equipment used in monitoring console), except for specific electrical performance tests of Section 7, as noted in Question 2. Classes II, III and IV equipment specify “monitoring” requirements. Such “monitoring” requirements, being performance based, apply irrespective of the type of equipment used. Should the monitoring equipment of an access control system also provide the monitoring of other “system(s)”, i.e. intrusion detection, compliance is required with both the monitoring requirements in CAN/ULC-S319-05 and in the standard applicable to the monitoring of other equipment. The operation of the access control system shall not be adversely be affected by the monitoring of such other system(s).
2	Section 1	UL 294 (Access Control System Units), sec. 1.2 and 27 outline an alternate method to evaluate monitoring console computers based upon testing of representative model with minimum system configuration. Can S319 take a similar approach?	As written, computer equipment is required to comply with all requirements of CAN/ULC-S319-05. However, the intent was only to test for system capability; not all of the electrical performance tests in Section 7. It was not intended for the following tests to apply to computer monitoring equipment if evidence is provided that the computer monitoring equipment complies with relevant Canadian safety standards, such as CSA/CSA-C22.2 No. 60950-1 (Information Technology Equipment-Safety-Part 1: General Requirements): • Subsections 7.3, 7.4, 7.5, 7.8 up to and including 7.38 Although this is not currently specified in CAN/ULC-S319, it is intended that for computer monitoring equipment, the manufacturer specify a minimum system configuration consisting of the following: (i) Operating system class, minimum revision levels/or kernel type and revision level (ii) Microprocessor type, minimum revision level and minimum clock speed (iii) Minimum disk storage (iv) Minimum memory requirements (v) Monitoring software revision level

No.	Clause/Section	QUESTION	ANSWER
3	5.2.3, table 6, 5.5.2.3, table 11 ALERT	Definition of ALERT does not specify where ALERT should occur. Section 5.2.3 and table 6 outline the requirements to ALERT in Monitoring console. Section 5.5.2.3 and table 11 require ALERT at portal for closing. No other requirements of ALERT at protected premises (local) in this standard. Does ALERT in this standard only refer to the signals at monitoring console and portal? No other ALERT required in controlled area?	Yes, the ALERT in this standard only refers to the signals at monitoring console and portal and no other ALERT is required in controlled area. Prescribed “Alert” requirements are only at the portal and at the monitoring console. “Alert” does not have the same meaning as “alarm”, which is for intrusion detection applications. Should an access control system also provide the intrusion detection functions, compliance is required with both the requirements of CAN/ULC S319 and of the applicable intrusion detection standard. The operation of the access control system shall not be adversely be affected by the intrusion detection functions.
4	5.4.1.3 Integrity of Communications	Its definition states “Communication Integrity exists as long as misleading actions or results are not accomplished by operation/request MALICIOUSLY ENTERED in the system by UNAUTHORIZED MEANS”. Does it mean Compromise Test (as in ULC-S304) is required between *reader*s and *access control units*? Or to verify Data Authentication is sufficient.	The extent of “ensuring communication integrity” is not defined under 5.4, but is defined in 5.3, Communication Channel Security, and verified in accordance with 7.39, Communication Security Compromise Test. The channel security starts from the reader to the monitoring console (per 5.4.1.3) for Level IV,
5	6.1.3 and 7.6.1 Trouble	Both sections refer to a “Trouble Signal”. However, Trouble Signal is not clearly defined in this standard. What are the requirements for trouble? Audible? Visual? Local? Monitoring console? What are the differences between “trouble” and “alert”?	“Trouble signal” has the same meaning as that used in CAN/ULC-S304, Signal Receiving Centre and Premise Burglar Alarm Control Units, but in CAN/ULC-S319-05, its referred as an “Alert” at the monitoring console, as specified in items 11 to 15 and 18 to 23 in Table 6, Monitoring Console Alert Requirements. Trouble and Alert are synonymous, however, it should be noted that Trouble causes an Alert.
6	5.1.7.1, table 4 item 9 to 14 Self Diagnostic	To what extend should Control Unit perform self-diagnostic? Control unit circuit only? Communication channel to the readers? Circuits in readers? What are the differences between self-diagnostic and electrical supervision?	“System self-diagnostic” is defined in the Glossary and some requirements are stated in Table 4. The frequency of system self-diagnostic is not defined and it is recognized that some conflicts exist between the communication channel security requirements and electrical supervision. The objective is to signal “faults”. The reporting of some faults is specified (e.g. for communication channel security).

No.	Clause/Section	QUESTION	ANSWER
			Frequency of system self-diagnostic to be considered in the next edition of CAN/ULC-S319. It was intended that unless supervised through other means, self diagnostic is be applied for items 11 to 15, and 18 to 23 in Table 6, Monitoring Console Alert Requirements.
7	4.2 Marking	Marking requirements of section 4.2 only apply to Portal Locking Devices. Why do more marking requirements apply to portal locking devices than to the control unit?	It was intended for 4.2.1 to apply to all access control devices, where applicable; not only to portal locking devices. This intent can be clarified in the next edition of CAN/ULC-S319 as follows (or blend 4.2, Portal Locking Devices, into 4.1, General): 4.2 Access Control Devices ~~Portal Locking Devices~~ 4.2.1 In addition to requirements identified in Clauses 4.1.1 and 4.1.2, the markings on ~~portal locking devices~~ access control devices shall provide the following information…
8	5.1.2.2 Minimum 64 user access levels	Need some guidance how to test or verify 64 levels.	It is required that a minimum of 64 combination of where and when a credentials may satisfy “access granted”. This can be verified from system literature.
9	5.1.3.1	Where were these "types of portal construction" originated?	With regards to 5.1.3.1 (B), it was intended for reference to “Type” to be “Class” for the four classes of equipment defined in this standard. This will clarified in the next edition of CAN/ULC-S319.
10	5.4.3.5 Separation	Need a clarification of what type of "separation" is required.	Separation” has the same meaning as “destruction by removal”. Intent is that the token will be unusable if there is any separation of the encoded information from the token.
11	5.4.5.2.5	Does it mean that for motion detectors, a keylock is required in addition to tamper switches?	The idea is to make it difficult to modify settings by having to remove some “locking” devices such as a screw. A keylock would satisfy the requirements but may be excessive.
12	7.5.2.1, 7.5.3	Should conditions in 7.5.2.1 (over- and under- voltage) also apply to 7.5.3 Power-Limited Circuits?	It was intended for 7.5.2.1-7.5.2.4 to apply to all output circuits, not just Non Power-Limited Circuit. Current requirements appear to be based, in part, on UL 1034 (Burglary-Resistant Electric Locking Mechanisms). This will clarified in the next edition of CAN/ULC-S319 by deleting title 7.5.2 (Non

No.	Clause/Section	QUESTION	ANSWER
			Power-Limited Circuit) and moving 7.5.21-7.5.2.4 into Section 7.5.1, starting from 7.5.1.3.
13	7.6.3 Manual battery test feature	Is a battery capacity test required in the manual test feature?	Yes, it can be effectively tested with a load test
14	7.6.3 Manual battery test feature	What kind of interface of battery status can be acceptable? Red/green LED for pass/fail? LCD to indicate voltage and capacity?	No specific requirements for indication as long as the "manual test feature effectively tests the capability of electronic components or the battery"
15	7.6.4 Supervision	What is the definition of "Protection circuit conductors"?	Protection circuit conductors are input circuit conductors (which have line supervision), such as for connection with readers, motions sensors, door status sensors, tamper switch, etc.
16	7.6.4 Supervision	Do the conductors connecting control unit and portal locking devices need to be supervised?	No, however, protection circuit conductors for connecting bond sensors in Class IV electromagnetic locks need to be supervised (Clause 5.6.7).
17	7.7.4.5, 7.7.4.7 Extended Power Failure	Does "Extended Power Failure" refer to the period in table 24 (30 min to 4 hr)?	Yes - extended power failure is defined in Clause 7.7.4.7 and Table 24, as the time in excess of minimum duration.
18	7.17.9 Temperature Test	Do "10% of Zones" refer to input zones?	Zones refer to any circuit that needs to be supervised (i.e. zones = protection circuits)
19	7.25 Drop Test	Can this test be waived for permanently mounted cord connected products? Answer: This is a "boiler plate" requirement. Whether the test can be waived is a question of consistency with requirements of similar standards.	This test is same as that in CAN/ULC-S303-M91 (Local Burglar Alarm Units), ULC-S306-03 (Intrusions Detection Units), UL294 (Access Control System Units). For the next edition of CAN/ULC-S319 it is recommended to waive this test for permanently mounted cord-connected products.
20	7.33 Static Discharge Test	Maintaining 10% +/- 5% RH in a humidity chambers could be a burden for most of the test labs, especially if a technician has to stay in the chamber to perform the test. Is the intent of the standard that 10%+/-5% RH has to be maintained while the lab technician is conducting the test? Or it is the samples to be pre-conditioned in this environment.	This test is same as that in ULC-S306-03 (Intrusion Detection Units). For the next edition of CAN/ULC-S319 it is recommended to re-evaluate this level of humidity and consider specifying a higher value for humidity.
21	7.35 Corrosion	Can the exception for control unit also apply to monitoring console equipments (computers etc), which are supposed to be installed in the similar or better indoor environment as control units?	Yes

No.	Clause/Section	QUESTION	ANSWER
22	7.36 Stability	(i) Similar to 7.35, can monitoring console equipments also be exempted? (ii) Therefore, can we further interpret that only non-inherently stable products, such as motion detectors, biometric readers are subject to this test?	(i) Yes, monitoring console equipments can also be exempted, similar to 7.35. (ii) No, it cannot be interpreted that only non-inherently stable products, such as motion detectors, biometric readers are subject to this test. However, for the future, consideration will be given for this test to apply only to non-inherently stable products in the next edition of CAN/ULC-S319.
23	9.1.2 Outdoor	Can same exception (mark for indoor use only) apply to readers for indoor use?	In addition to portal locking devices, there is a good probability that readers and REX may also be installed outdoors. Therefore, the intent of 9.1.2 is for other devices that may be installed outdoors. It will be recommended to revised 9.1.2 as follows for the next edition of CAN/ULC-S319: "Unless specified and marked for indoor use only (see Clause 7.10.2), products are assumed to be installed indoor and outdoor, or the like, and shall comply with the requirements specified in this Section."
24	9.3.1.7 Rain Test	Can a voltage meter with internal resistance higher than 30 k Ohm be used for this test? Answer: This is a question of consistency with methods used with similar standards.	This requirement is based on CAN/ULC-S303-M91 (Local Burglar Alarm Units) and ULC-S306-03 (Intrusion Detection Units). For the next edition of CAN/ULC-S319, It will be recommended to revise 9.3.1.7 to indicate that minimum 30 KΩ resistance should be used.
25	9.3.1.8 Rain Test	This section specifies 900 mm between the central nozzle and the EUT, while 1400 mm is shown on Figure 17. Which distance should we apply? (for reference: 1400 mm in UL294)	1400 mm is from the centre of the nozzle to the focal point; not to the EUT. All dimensions are correct as specified and consistent with other ULC standards.
26	9.3.5 Corrosion	Only 9.3.5.2.5 gives number of samples (3) of portal locking device for salt spray test. How many samples are required for each corrosion test?	One sample for each of the 3 environments (total of 3 samples) per 9.3.5.1.1.