GE
Security

Maintenance Schedule

V8 Challenger Routine Maintenance

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Introduction

This document outlines the GE Security recommended maintenance for Challenger Version 8.

Standards

Routine maintenance on intruder alarm systems installed in a client's premises should be performed in accordance with AS2201.1-1998 SECTION 5. MAINTENANCE, RECORDS AND REPORTS. **Note that this standard requires that routine maintenance be performed at least once per year.**

Copies of this standard are available from Standards Australia and can be purchased on-line (Standards Australia website: http://www.standards.org.au/).

Peripheral devices

Specific routine maintenance procedures for individual items of peripheral devices connected to the GE Security equipment are not included in this procedure. "Peripheral devices" include, but are not limited to, movement detectors, smoke detectors, warning devices, batteries, and access readers.

Note that operation of most peripheral devices will be performed as part of the test procedures required in this maintenance procedure. However, this may or may not meet the routine maintenance procedures recommended by the suppliers or manufacturers of those devices.

If required, obtain routine maintenance procedures for peripheral devices from the suppliers or manufacturers of those devices. As a minimum, follow the procedure described in AS2201.1:

Detection devices	Refer to Clause 5.2.1.2 (c)
Audible and visible alarm and warning devices	Refer to Clause 5.2.1.2. (i) and Clause 3.10

Automated testing

Refer to the "Install Options" programming section of *The Challenger Version 8 Programming Guide* (included in the *V8 Challenger Programming and Hardware Installation Guides* binder) for details of the following system features that can be used to provide some automated system testing:

- Input Test Type — See "Input Database" section.
- Siren Output Test — See "System Options" section.
- Periodic Dialler Test Reports — See "Communications Options" section.
- Dynamic Battery Testing — See "Battery Test" section.

These automated functions are not designed to replace any of the routine maintenance procedures, but will further enhance the integrity of the system during normal day-to-day operation.

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Recommended routine maintenance procedures

Task	Frequency	Description
Notify the monitoring company	As required	If the system is monitored, the central monitoring station (CMS) staff must be notified before any tests are made. To perform testing and/or maintenance work on monitored systems, you must be authorised to do so. Central stations have procedures for identifying authorised personnel.
Notify personnel on the premises	As required	Prior to any test that will impact on any personnel, ensure that all affected personnel and appropriate supervisory and/or management staff are given any necessary notification, warning or instructions (for example, testing of zone inputs and warning devices).
Check the equipment schedule	Once per year	Check the installation, location and siting of all equipment and devices against the records supplied by the installation company. Record and report any discrepancy.
Check the wiring and conduits	Once per year	Inspect all visible wiring and conduits.
Check for dust, moisture and vermin	Once per year	Check for ingress of dust, moisture, condensation and vermin into all equipment enclosures. If excessive moisture or foreign matter is present, check enclosure location, environment, mounting method and cable entry points for sources of entry, and take steps to rectify.
Check the power supply	Once per year	Check that all mains operated modules and power supplies are connected to a mains outlet and are operational.
Check the Challenger 2 A power supply output voltage 13.8 V ± 2%	Once per year	Test DC voltage across the "+" and "-" output terminals on all power supplies, with battery disconnected.
Check the detector supply voltage 13.8 V ± 2%	Once per year	Test DC voltage across the "Auxiliary Power Output" terminals on the following equipment: • Challenger panel • Standard input data gathering panels • Intelligent 4 Door Controllers

Task	Frequency	Description
Check batteries	Once per year	Check that all battery-backed panels and power supplies have the battery fitted and connected to the "Batt +" and "Batt -" terminals. • Challenger panel • Standard input DGPs • Intelligent 4 Door Controllers • Power supplies (battery backed)
Test battery charge voltage 13.8 V ± 2%	Once per year	Test DC voltage on the "Batt +" and "Batt -" terminals. • Challenger panel • Standard input DGPs • Intelligent 4 Door Controllers • Power supplies (battery backed) NOTE: When mains power is restored following an AC fail condition, the battery charge voltage may range from 11 V to 13.8 V while the battery is recharging.
Replace battery	As specified by the battery manufacturer — OR — no more than 3 years	Replace the sealed lead-acid battery with a battery of the same specifications. Record the installation date of the new battery where it is clearly visible on the battery itself, or on a label clearly visible within the equipment enclosure and in the system maintenance records.

Check LCD/LED RAS keypad keys	Once per year	Check operation of every key on the keypad. Observe that labelling on all keys is clearly legible. Observe that keypad backlighting is operational on supported keypads.
Check LCD/LED RAS keypad displays	Once per year	Observe all LCD display characters are operational. Observe LCD backlight is operational. Test operation of each LED on RAS terminals. See "Lamp Test" in "Install Options" programming section of *The Challenger Version 8 Programming Guide*.
Check LCD/LED RAS egress and output	Once per year	If the RAS egress or output is used then test their operation. The egress should open the door and the output should activate when required.

Test operation of access reader inputs and outputs	Once per year	Test the operation of all access readers using appropriate user ID tokens, including card, key fob, PIN code, etc. Results of reader operation and response of reader LEDs and beeper will depend on system programming. The required operation and test method should be recorded in the system maintenance records.
Test the secondary (backup) communications format (if provided)	As agreed between the alarm company and the client, but not less that once per year. Also see *Notes* on page 5.	NOTE: Must be pre-arranged in consultation with the CMS staff. • Disconnect the primary (main) communications format. • Perform an operation that triggers reporting. • Check that, after attempting to communicate via the primary format, the system reports successfully via the secondary format. • Re-connect the primary communications format.

Task	Frequency	Description
Test the primary (main) communications format. (May be performed in conjunction with zone input testing).	As agreed between the alarm company and the client, but not less than once per year. Also see *Notes* on page 5.	NOTE: Must be pre-arranged in consultation with the CMS staff. • Perform an operation that triggers reporting. • Check that the system reports successfully.

Test system inputs (detection devices). Test areas programmed to Report. Note: Special testing devices or procedures may be required if testing of smoke, heat, seismic glass-break detectors, etc., is required.	As agreed between the alarm company and the client, but not less than once per year. Also see *Notes* on page 5.	• Obtain a list of all inputs to be tested. • Test each input by causing it to switch from the sealed state to un-sealed (alarm) and back to sealed. • The Test Input user menu can be used to monitor the zone activity. • Check-off each input on the list as it is successfully tested. • Record and report any discrepancy. Many alarm companies recommend that input testing includes reporting the zone input alarms to the central station to fully test the alarm system operation. When this type of testing is required, the following points must be noted: • The testing must be pre-arranged in consultation with the CMS staff. • All the relevant areas must be turned on. • After testing, turn the relevant Areas off again. • Obtain the central station report of all input alarms/restores and area opens/closes reported during the testing procedure. • Compare the input/area list and central station report to ensure that all tested inputs reported alarm and restore, and all tested areas reported close and open as required. • Record and report any discrepancy.
Test warning device outputs. (May be performed in conjunction with zone input testing.)	As agreed between the alarm company and the client, but not less than once per year. Also see *Notes* on page 5.	NOTE: The CMS staff may need to be notified before these tests are made. Test the operation of each audible and visible warning device. • Turn on the appropriate area. • Activate a detection device or user operation that is programmed to trigger the warning device. • Check that the warning device operates as specified. • Record and report any discrepancy.

Backup history files for management software (e.g. TITAN, ARES).	Recommended monthly	Backups should be performed on a regular basis depending on the number of events. The backup file should be verified and then the same data should be purged or deleted from the database.
Backup or export database for management software (e.g. TITAN, ARES).	Recommended monthly	Database backups or exports should be performed on a regular basis. Verify that the backup file has been created.

Task	Frequency	Description
Perform modifications	As required	Any modifications to the system as a result of the maintenance procedure must be recorded and reported. Technician to program next service date. See "Program Next Service" in "Install Options" programming section of *The Challenger Version 8 Programming Guide.*
Obtain client approval	At the conclusion of every routine maintenance visit	Obtain the signature of the client or the client's representative on the maintenance record.

Notes

The frequency for testing the operation of all detection devices, audible and visible alarm warning devices and remote signalling (reporting) operations should be determined according to the needs of the particular installation.

The Australian Standard AS2201.1 specifies that these tests must be carried out at least once per year, however some central stations and clients prefer more frequent testing to ensure the integrity of the system. For example:

- Sites requiring a higher level of security monitoring, or that are prone to interference of harsh environmental conditions, may choose to have these tests carried out quarterly or more frequently.
- Very large sites with hundreds of detection devices may choose to do testing every 6 months with 50% of the detection devices tested on each visit.

Sites where the automated testing functions in the product have been enabled and properly implemented may find that annual routing maintenance is adequate.