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National Security Inspectorate

NACOSS Gold Supplementary Code of Practice for the Planning, Installation and Maintenance of Intruder Alarms NACP 11

*This Code of Practice applies to companies holding NACOSS Gold approval
(formerly called NACOSS Recognition)*

This Code of Practice is to be read in conjunction with the NACOSS Gold Regulations relating to Approval by NSI and the NACOSS Gold Approval Criteria.

No company shall hold out or claim that it adheres to this Code, save by virtue of holding NSI Approval, or having obtained the written permission of NSI.

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Supplementary Code of Practice for the Planning, Installation and Maintenance of Intruder Alarms

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In this document, material (such as guidelines, information, recommendations, advice) that does not form a mandatory requirement of this Code is shown in italics.

1. SCOPE

- 1.1 This Code applies to intruder alarm systems including the repair, maintenance and updating of such systems.

2. INTRODUCTION

- 2.1 The requirements contained in this Code supplement those contained in BS 4737 (British Standard for Intruder Alarm Systems in Buildings). Firms are required to comply with BS 4737, in addition to the requirements contained in this Code.

3. SYSTEM DESIGN

3.1 Choice of Components and Equipment

Intruder alarm systems shall be so designed that they and their associated equipments and components are used within the makers' stated specifications and tolerances and in accordance with BS 4737 and other relevant Codes of Practice.

An exception is permitted (provided explicit customer agreement is obtained in writing) in that systems, equipments and/or components may be used outside their makers' stated specifications and/or tolerances where it has been demonstrated to the satisfaction of the installing firm that the alarm system will function safely and reliably. The appropriate evidence shall be recorded in writing or by other suitable means at the office of the installing firm.

3.2 Signalling Integrity

It is important that the signalling integrity of the system is given full consideration, bearing in mind the risk, detection capability and location.

Customers shall be encouraged to choose a signalling system that is appropriate to their needs and circumstances and consistent with the risk and cost involved.

In general terms, signalling systems are:

3.2.1 *Central Station with monitored opening and closing and fault signals with a dedicated circuit (private wire/multiplexing).*

3.2.2 *Central Station, monitored fault signals with a dedicated circuit (private wire/multiplexing).*

3.2.3 *Police Station connection with dedicated circuit (private wire/multiplexing).*

3.2.4 *Digital communicator to Police Station or to Central Station.*

3.2.5 *Alarms by carrier (abc) (a British Telecom "Red" system) to Police Station; the system is only available in certain areas of the country.*

3.2.6 *"Communicating Alarm Response Equipment" (CARE) (a British Telecom "Red" system) to Central Station; the system is only available in certain areas of the country.*

3.2.7 *"999" dialler (this system is being phased out).*

3.2.8 *Audible only alarm.*

3.3 Setting and Unsetting times

NOTE: There shall be designated entry routes and exits routes.

The system shall be so designed that the keyholders have adequate time to carry out their duties, which are:

On setting

- a. To verify that premises are clear of all other persons before alarm system closing commences.
- b. To ensure that all doors, windows, fanlights etc., are securely fastened.
- c. To check stability of the stacking of stock.
- d. To carry out the tests (e.g. walk tests for movement detectors) as recommended by the installer.
- e. To set the alarm system in accordance with the alarm company's written instructions.

On unsetting

- f. To unset the alarm system in accordance with the alarm company's written instructions before any other person enters the protected area.
- g. After initiating the procedure to adhere strictly to the access route.

Setting and unsetting

- h. To be satisfied that sufficient time is available to complete the unsetting and setting procedures.

3.4 Control of noise from audible intruder alarms

Attention is drawn to Statutory Instrument 1981 no. 1829, relating to the control of noise from audible intruder alarms and to the associated >Code of Practice= on noise from audible intruder alarms 1982 (obtainable from Her Majesty's Stationery Office reference ISBN 0 11 751590 6).

Section 4.1 of the 1982 Code states that:

"in the interests of avoiding risks of serious disturbance to the public it is desirable that audible intruder alarms should be fitted with an automated cut-out device. Such a device would automatically stop the ringing after a period of about twenty minutes from activation of the system. A cut-out device can be supplemented with a flashing light which continues to operate after automatic termination of the ringing and indicates that the premises are still in alarm condition".

An automatic cut-out (programmed to silence the external audible alarm after a continuous period of sound not exceeding twenty minutes) shall be used wherever it is acceptable to the customer; however customers shall be advised that (where an alarm is fitted at the instance of their insurers) they should consult with the insurer before reaching a final decision regarding a twenty minute cut-out device.

3.5 Wiring Regulations

Attention is drawn to the >Wiring Regulations= (Regulations for Electrical Installations) published by the Institution of Electrical Engineers.

Particular care should be taken with regard to electrical segregation of wiring carrying mains voltage from wiring carrying extra-low voltages, and with regard to electrical separation between circuits operating at these different voltages.

Particular care should be taken with regard to protective earthing and bonding.

3.6 Connection of remote signalling

For alarm systems having movement detectors, beam interruption detectors or vibration detectors, the system shall be in operation for a false-alarm free period of seven consecutive days before any remote

signalling is connected.

The seven day false-alarm free period shall be completed prior to final commissioning; the person responsible for final commissioning shall check the records to ensure that false-alarms have not been generated.

3.7 Automatic Dialling Equipment

Tapes or discs for automatic dialling equipment shall be clear and intelligible. The message shall be in accordance with the relevant telephone authority and police requirement.

Automatic dialling equipment and digital communicators shall be sited within the protected area and they shall be firmly secured.

3.8 Requirements of Police Forces and Telephone Companies

Where applicable, alarm systems shall be in accordance with the policies and codes of practice of the relevant police forces and telephone companies.

3.9 *Attention is drawn to Sections A2 and A3 of Appendix A of the NACOSS Code of Practice for the Management of False Alarms (NACP 10).*

4. REMOTE MONITORING OF INTRUDER ALARMS

4.1 Where firms contract to provide central monitoring of intruder alarms, they shall use only central stations that are Recognised by NACOSS (or other central stations approved by an independent third-party approvals organisation acceptable to NACOSS and complying with the requirements of BS 5979).

NOTE: This requirement applies immediately to BS 5750 firms certificated by NACOSS. However, in other cases, implementation of this requirement is deferred until 31st December 1992. In the meantime, use of Recognised or approved central stations is recommended.

NOTE: *Remote monitoring services should be provided only for alarm systems that are under a maintenance agreement. Attention is drawn to the provisions of Section 7.2.3 of the Code.*

4.2 *In commercial premises, it is common to agree alarm setting and unsetting times if they are to be monitored. Remember, if these times are to be changed the central station must be notified well in advance.*

5. INSPECTION AND TEST

5.1 General

All alarm systems shall be properly and thoroughly inspected and tested, to ensure compliance with BS 4737 (or other applicable British Standard) and with this Code, before they are handed over to the customer. The inspection process shall be continuous and shall begin when work on the system commences. Work in progress shall be checked and supervised by a responsible person with particular attention being paid to the standard of workmanship.

Recognised Firms shall have a written procedure for commissioning alarm systems, to ensure that nothing is overlooked. Wherever practicable, the final inspection and test shall be carried out by a qualified person other than the one who installed the system; this is especially important for the more complex systems. A suggested checklist is given at the end of this Code (Attachment 1).

5.2 Detection Circuits

All detection circuits shall be checked for continuity.

Resistance readings for each detection circuit shall be recorded in the equipment record.

The insulation resistance between conductors shall be checked as being operationally satisfactory.

The insulation resistance between conductors and earth shall be checked as being operationally satisfactory.

Examine all connections and junction boxes for correct fitting.

Ensure that all the lids of junction boxes, containers and detection devices are correctly secured.

It is important to check wiring which on later occasions is difficult to examine (such as that under floorboards, carpets, etc).

Ensure that the earthing arrangement is in accordance with the IEE Wiring Regulations.

5.3 Power Supplies

Checks and readings shall be made in accordance with the requirements of BS 4737:Section 4.1:1987:Clause 4.7.3.3.

- with the system fully operational but with the stand-by power source (i.e., the battery) disconnected, check the total load current drawn by the system. Record the reading in the alarm system documentation, for future reference.

NOTE: The design of some system control equipments may not permit the above measurement to be taken.

- with the system fully operational but with the mains supply disconnected (i.e., with the system powered by the fully charged stand-by battery), check the total load current drawn by the system. Record the reading in the alarm system documentation, for future reference.
- calculate that the stand-by battery is of sufficient ampere-hour capacity for eight hours stand-by operation.
- check the charging rate to the rechargeable battery.
- record the battery capacity and charging rate in the alarm system documentation, for future reference.
- with the system fully operational, check the operating voltage at each movement detector. Record the readings in the alarm system documentation, for future reference.

NOTE: Where there is more than one power supply, the readings shall be taken and the calculation made for each such power supply.

5.4 Mains Connection

Ensure that the connection to the electricity supply mains is permanent, in accordance with BS 4737:Part 1:1986. A plug and socket is not acceptable and the system shall not be handed over until correct mains connection is available.

5.5 Operational Check

Carry out a full operational check of the complete system, including the normal setting and unsetting procedures and, where applicable, the isolation of circuits.

5.6 Auto Dialling Equipment and Digital Communicators

Auto dialling equipment and digital communicators shall be checked to ensure that they are sited within the protected area and firmly secured.

Connections to the termination supplied by the relevant telephone authority shall be checked for

correctness.

The correct signalling capability of the full complement of alarm signals through the receiver/printer at the remote manned centre, and the correct close-down actions shall be tested and the results recorded.

If any additional features such as those listed below are incorporated, they shall be tested and recorded:

- (a) Priority signalling
- (b) Repeat signalling attempts on failure to communicate
- (c) Instant audible alarm when the relevant telephone authority line is open or short-circuit or engaged
- (d) Stand-by battery take-over on mains failure
- (e) Latching and manual re-set of the system after an alarm transmission
- (f) Tamper protection on container, if non-integral with the control unit.

5.7 Private Wire

Any private wire shall be correctly identified with the relevant telephone authority reference number noted in the documentation.

If the signalling transmitter is not integral with the control unit, its siting shall be within the protected area.

The relevant telephone authority line shall be checked, to ensure that it is adequate for the correct operation of the signalling system.

The correct transmission of the full complement of alarm, unsetting and setting and line fault conditions through the remote manned centre shall be tested and the results recorded.

If any additional features such as those listed below are incorporated they shall be tested and the results recorded:

- (a) Priority signalling
- (b) Instant audible alarm capacity when the relevant telephone authority line is faulty
- (c) Latching and manual reset of the system after an alarm transmission
- (d) Tamper protection on the container if non-integral
- (e) Stand-by battery take-over on mains failure.

5.8 Corrective Action

Any deviations from the agreed specification shall be resolved.

Any non-compliances with relevant British Standards, Codes of Practice, or other requirements shall be corrected.

The system shall be re-inspected and re-tested to the extent necessary to verify that the corrective action is effective.

5.9 Documentation

After final testing, all documentation shall be completed, including the System Record (refer to Section 9 of NACOSS Code of Practice for Customer Communications (NACP 2)).

Arrangements shall be made for the issue of the NACOSS A Certificate of Compliance@ as required by the Council's Rules.

It is important that changes between the original specification and the items actually fitted are noted

and agreed in writing by both the Recognised Firm and the customer, so that the customer may agree such changes with his insurer (refer to Section 10.15 of NACP 2).

Where key-holders are nominated, check that the details have been recorded and that the customer has passed the details of all key-holders to the local police.

6. HANDOVER OF THE ALARM SYSTEM

6.1 Refer to Section 10 of NACOSS Code of Practice for Customer Communications (NACP 2).

7. MAINTENANCE AND SERVICING

7.1 Definitions

7.1.1 Preventative Maintenance: Routine servicing of a system, carried out on a scheduled basis.

7.1.2 Corrective Maintenance: Emergency servicing of a system, or part thereof, carried out in response to the development of a fault.

7.1.3 Alarm Technician: For the purposes of this section, the term means a person who is trained and competent in the installation, maintenance, servicing and fault-finding of intruder alarm systems.

7.1.4 Preventative Maintenance Report: A document which records the preventative maintenance carried out in accordance with clause 4.4 of BS 4737:Section 4.2: 1986 or other applicable technical standard. A specimen report is given at the end of this Code (Attachment 4).

7.1.5 Corrective Maintenance Report: A document that details the requirement for normal or emergency corrective maintenance and indicates the corrective action taken, as required by clause 4.5 of BS 4737:Section 4.2:1986, or other applicable technical standard. A specimen report is given as an Attachment to NACOSS Code of Practice for Management of False Alarms (NACP 10)

7.1.6 Customer: For the purpose of this section, this means any person or organisation utilising the services of a Recognised Firm for the maintenance and servicing of an intruder alarm system. It includes the customer's agent.

7.2 Maintenance Contracts

7.2.1 It shall be the policy of each Firm Recognised (or seeking Recognition) as an installer of intruder alarms that each customer entering into a contract for the installation of an intruder alarm is required also to enter into a maintenance service agreement running for at least one year from the date of installation of the security system.

The following exceptions are permitted:-

- (a) where the firm has on file evidence that the customer has been requested to enter into such an agreement and has applied in writing to the Firm to be excused from doing so.
- (b) where the firm installs a security system for use in connection with that firm's own operations (e.g., to protect premises occupied by the firm). In this case, the firm is deemed to be its own customer but the obligation to carry out maintenance inspections remains. However, the requirement for a formal service agreement is waived; in such cases maintenance and maintenance inspections are to be carried out as if such a contract existed between the firm as supplier of the security system installation and the firm as user of the security system.

7.2.2 A firm may permit a maintenance service agreement to be properly terminated (including termination prior to the end of the minimum period stated in 7.2.1 above) if and when any of the following circumstances arises:-

- tenure of the protected premises changes hands;

- payment is overdue, the customer having been duly invoiced and a reminder having been sent containing a warning notice to the effect that non-payment will lead to discontinuation of maintenance service (and normally to disconnection of monitoring - see Section 7.2.3 of the Code);
- the customer has applied in writing to be excused from the agreement;
- the maintenance service agreement is transferred with the agreement of the Firm to another Recognised Firm;
- exceptionally, where the customer has acted unreasonably, made unreasonable demands on the firm, or is guilty of a substantial breach of contract.

7.2.3 The provision of central monitoring services for intruder alarm systems shall be conditional upon the alarm being and remaining the subject of a maintenance service agreement. Where maintenance service is discontinued (whether due to expiry of the maintenance service agreement or otherwise) the firm shall cease monitoring the alarm within thirty days of the cessation of maintenance service, having first notified the customer by writing to him at his last known address.

NOTE: Implementation of this requirement is waived where and to the extent that it would cause the firm to be in breach of a contract with its customer entered into on or before 31 December 1991.

7.2.4 In all cases where maintenance service is discontinued, the firm shall immediately inform the customer by writing to him at his last known address.

7.3 Staff

Every Recognised Firm shall have sufficient alarm technicians to maintain and service all its installations in accordance with BS 4737 (or other applicable technical standards).

As a guide, the following is a scale of installations per technician for routine maintenance and servicing:

Up to 150 installations - 1 technician

150 - 500 installations - 2 technicians

+1 additional technician for every 250 installations over 500.

The geographical spread, contractual commitment and complexity of the installations shall be taken into account when calculating the number of installations to a technician, bearing in mind the need to provide adequate cover at all times.

7.4 Corrective Maintenance

7.4.1 The emergency service (corrective maintenance) facility shall be so located and organised that, under normal circumstances, the Recognised Firm's alarm technician attends the premises as soon as practicable and in any case within 4 hours or before the alarm system is required to be Aset@, whichever is the longer. This service shall be available 24 hours a day throughout the year except to offshore islands.

7.4.2 A reliable system of communication between the controlling office, the customer and all alarm technicians shall be maintained at all times.

7.4.3 There shall be one or more stand-by alarm technicians. If there is only one alarm technician on call-out there shall be a support facility to meet the requirements of paragraph 7.4.1 above.

7.4.4 Alarm technicians and other duty engineering staff shall be available and shall keep in regular and frequent contact with their operational base.

7.4.5 The alarm technician shall determine the cause of any alarm activation or fault and then carry out one or more of the following:

- (a) Repair and leave the alarm system fully operational.
- (b) Temporarily repair the alarm system subject to the customer=s approval.
- (c) With the customer=s approval, disconnect part of the system and obtain his signature.
- (d) In the case of a telephone line fault, to confirm the condition and change the system to alternative signalling (if installed) and obtain the customer=s signature.
- (e) Fit temporary or permanent protection following break-in or damage.

If the fault on the alarm system cannot be located or positively confirmed, the alarm technician shall contact service control for instruction. (Refer to the NACOSS Code of Practice for the Management of False Alarms (NACP 10)).

7.4.6 A report of all action taken shall be made on the corrective maintenance report and the customer=s signature obtained. A copy is to be left with the customer. (Example report form is given in NACP 10).

7.4.7 Any parts of the alarm system disconnected or temporarily repaired shall be recorded in accordance with BS 4737:Section 4.2:1986:Clause 4.6 (or other applicable technical standard), obtaining the customer=s signature as authority, and must be reported for further action. The Recognised Firm shall ensure that action is taken normally during the next working day.

7.4.8 Details of confirmed line faults shall be passed to the relevant telephone authority at the earliest moment and progressed on a regular basis to ensure early rectification.

7.5 Preventative Maintenance

7.5.1 It is essential that Recognised Firms operate a planned programme of preventative maintenance visits, in accordance with BS 4737:Section 4.2:1986:Clause 3.2 (or other applicable technical standards) or contract requirements for frequency of visits.

A system shall be established such that follow-up action is taken when there is no access to the premises.

For remote signalling intruder alarms, preventative maintenance visits should be made at least twice per year. For audible-only intruder alarms using mains and rechargeable battery standby power supply, preventative maintenance visits should be made at least once per year (clause 3.2 of BS 4737:Section 4.2:1986 refers).

7.5.2 When carrying out a preventative maintenance visit the alarm technician shall first establish with the customer whether there have been any problems with the alarm system since the last preceding preventative maintenance visit.

The system documentation or that kept by the customer shall be examined by the alarm technician to see whether there have been any service calls or alarm incidents since the last preceding routine visit. Where possible, the alarm technician shall also enquire whether there has been, or is likely to be, a change of use of the premises, a change of working procedures, or a change of tenure.

The alarm technician shall ensure that the customer is still fully conversant with the operation of the alarm system.

7.5.3 The intruder alarm system shall then be visually inspected, checking the following items:-

- (a) The number and type of detection devices shall be in accordance with that stated in the specification and amendment.
- (b) Cable damage or unclipped cabling, broken junction box or damaged detectors.
- (c) Check mechanical securing of all doors and windows which are alarm protectors,

and report faults to the customer.

- (d) Loose or broken controls/indicators on control unit or entry route or exit route.
- (e) Ensure sound physical fixings of all equipment. Items requiring attention shall be rectified or reported as necessary, recording all such work on the preventative maintenance report. (Example report form is appended to the Code).

7.5.4 The alarm technician shall take preliminary precautions to ensure that signalling systems associated with deliberately-operated devices are not invalidated for any period longer than is necessary. Before work is undertaken in this area, the customer shall be informed that the alarm system will be temporarily out of commission. Immediately upon completion of testing, the customer shall be informed that the alarm system is again in operation. Provided deliberately-operated devices are not incorporated in the system, it may be in order to disconnect the remote signalling system in order to prevent accidental alarm transmissions during such work.

7.5.5 The following checks shall be undertaken on all power supply systems:

- (a) Check that the correct fuse is fitted and ensure that the connection unit (e.g., spur box) is either unswitched or key-operated.
- (b) Disconnect the mains supply and check that the stand-by supplies take over smoothly without generating an alarm condition. Ensure that the system properly takes up mains supply on reconnection and that the restoration of power does not cause instability or generation of an alarm condition.
- (c) Check that the equipment being fed by the power supply has the correct voltage at its terminals when on stand-by.
- (d) Inspect batteries and ensure that there is no leakage or corrosion of the terminals. Replace batteries or clean and grease the terminals as necessary.
- (e) Where wet batteries are in use, check the specific gravity of the electrolyte and top up as necessary.
- (f) Check the correct operation of the tamper detection circuit on each power supply housing.
- (g) Ensure that all mains indicator lamps are functional.
- (h) Ensure ventilation of battery containers is adequate.

7.5.6 Check that all primary cells have the dates of installation marked on them.

All primary cells that have exceeded 75% of their expected shelf life shall be replaced. The replacements shall have the date of replacement marked on them.

7.5.7 Check that all detection devices are installed and located correctly and that their performance and sensitivity meet the requirements of the specification and the area or volume of coverage is as recorded in the system record (specification) and amendments.

7.5.8 The control unit and ancillary control equipment shall be checked against a list prepared by the Recognised Firm. Such tests shall include the switching and indication facilities, power supplies where they are integral with the control unit (to be tested in accordance with the procedures outlined above), tamper detection and mains failure circuitry and electronic timers.

7.5.9 For all external audible alarms, check the following:-

- (a) The operation and loudness.
- (b) The operation of the tamper detection circuit.
 - (c) The good condition of the housing.
 - (d) The correct operation of the self-activating circuit.
 - (e) The automatic cut-out is correctly programmed or connected, as appropriate.

7.5.10 Wherever practicable, the alarm system shall be tested to ensure that each detector indicates on its allocated circuit. The system shall be Aset@ and the access circuit checked for correct operation, including the access circuit internal audible warning which shall be audible throughout the access route. With the system Aset@, a detector shall be operated and the external and internal audible alarms checked for correct operation. With the system Aunset@, the correct operation of the tamper detection circuit shall be checked.

7.5.11 All signalling systems shall be checked as stated in Sections 7.5.12 to 7.5.15, as applicable.

7.5.12 Audible alarms: See Section 7.5.9 and 7.5.10 above.

7.5.13 Automatic dialling equipment (999):

Precautions shall be taken to ensure that before the automatic dialling equipment is opened it will not be possible for a call to be transmitted.

The tape or record mechanism shall be examined for good mechanical operation and cleanliness.

If test calls are permitted by the local police, the system should be Aset@ and a detector operated to start the automatic dialling equipment. On completion of the transmission, the police station should be called by telephone to ensure that the message was received and that it was both correct and intelligible. If test calls are not permitted, the test may be carried out listening on the local telephone handset.

Check that the system cannot be Areset@ until the automatic dialling equipment is Areset@.

The remaining features of the automatic dialling equipment shall be tested against a checklist prepared by the Recognised Firm. Such a checklist shall include the testing of:

- (a) The line sense circuit for both an open-circuit to telephone line and engaged line.
- (b) The anti-tinkle feature and tamper circuits to ensure effectiveness.
- (c) The power supplies associated with the automatic dialling equipment (the checklist and procedure described in Sections 7.5.5 above should be adhered to as applicable). Check that the unit is set to the Amanual reset@ mode.

On completion, ensure equipment is returned to operational condition.

7.5.14 Digital Communicators:

The details of the alarm system identification and maintenance engineer identification and of any tests to be carried out shall be passed to the central station before tests are commenced, so that false alarms are not generated unnecessarily.

The control equipment of the alarm system should now be Aset@ and a programme of testing initiated using a checklist prepared by the Recognised Firm. Wherever practicable, the tests should include the operation of at least one detector.

The testing of the digital communicator shall include a provision for checking the total number of alarm inputs that are connected, together with their priority rating.

The line sense circuitry shall be checked in accordance with Section 7.5.13 above and the repetition calling sequence of the transmitter checked for correct operation.

The engineer reset facilities will be tested in accordance with the procedures listed in Section 7.5.13 above.

Check the tamper detection circuit is operational.

The power supplies associated with the digital communicator shall also feature in the test procedures and the procedures as listed in Section 7.5.4 shall be adhered to, as applicable. Check that the system is set to the Amanual reset@ mode.

The central station shall be contacted to ensure that the transmission of information has been received correctly. On completion of all tests, the central station shall be advised accordingly.

7.5.15 Direct Line Systems:

The central station shall be advised initially to ensure that they are ready for a test routine and that they will not treat it as an alarm condition.

The transmitter shall be tested against the Recognised Firm's checklist, which will include all conditions which can be annunciated at the central station.

On completion of the transmission, the sequence shall be checked with the central station for correctness.

Any power supplies associated with direct line systems shall also figure in the checklist and the procedure as listed in Section 7.5.5 above should be adhered to, as applicable.

NOTE: It is important that local police policy is followed when tests are conducted with remote signalling systems. Alarm technicians should be aware of the requirements in the police area in which they are working.

APPENDIX A

LIST OF DOCUMENTATION

This summary of the documentation normally associated with an intruder alarm installation is given for information and guidance. However, it should be noted that a number of documents referred to are required by the British Standard and/or by NACOSS Codes of Practice.

A.1 *Quotation: see NACP 2:Section 5*

A.2 *System Design Specification: see NACP 2:Section 6*

This document will form part of the Quotation, or it will be referenced in the Quotation.

A.3 *Contract: see NACP 2:Section 7*

The document the customer signs; it may be a permanent part of the Quotation, or it may be a separate document.

A.4 *Operating Instructions: see NACP 2:Section 10.6*

BS 4737:Section 4.1:1987:sub-clause 4.7.4 refers.

A.5 *Handover Checklist: see NACP 11*

An example is given at the back of NACP 11, as NACP 11 Attachment 1.

A.6 *Completion Certificate: see NACP 2:Section 10.4*

An example is given at the back of NACP 11, as NACP 11 Attachment 2.

The Completion Certificate may take the form of a Certificate attached to the end of the Handover Checklist.

A.7 *System Record: see NACP 2:Section 9*

This document forms a permanent description of the alarm system. Its content will be similar to that of the System Design Specification, but amended to take account of any changes made during actual installation. It should be in zone/circuit format. It is required by BS 4737:Section 4.2:1986:sub-clause 4.2, and should include the information listed in BS 4737:Part 1:1986:sub-clause 3.2.4.

(BS 4737 refers to the System Record as being part of the System Log Book (BS 4737:Section 4.1:1987:sub-clause 4.7.4) but separate documents are acceptable).

A.8 *Historical Record*

This document is required by BS 4737:Section 4.2:1986:sub-clause 4.3. It can be produced in various forms (cards etc). An example page for a Historical Record is given at the back of NACP 11, as Attachment 3. This document forms a log of events during the life of the alarm system and is for use by the alarm company's maintenance engineer. The system's attributes (e.g., bell duration and delay and exit/entry times, together with the operational checks for voltage, current and maintenance readings required by BS 4737:Section 4.1:1987:sub-clause 4.7 may also be included).

A.9 System Log Book

This comprises a system log and users= handbook; firms may use one of the following booklets:

AInformation Handbook (and System Log Book) for your Intruder Alarm@ (published by and obtainable from NACOSS)

or

AIntruder Alarm Users= Handbook and System Log@ (published by and obtainable from British Security Industry Association Limited).

This document may contain general or specific information to the user regarding the alarm system. It should permit the user to record details of alarm activities.

A.10 Preventative Maintenance Report: see NACP 11:Section 7.1.4

An example is given at the back of NACP 11, as NACP 11 Attachment 4. This document is required by BS 4737:Section 4.2:1986:sub-clause 4.4.

A.11 Corrective Maintenance Report: see NACP 11:Section 7.1.5 and NACP 10

An example is given as an Attachment at the back of NACP 10 (Code for Management of False Alarms). This document is required by BS 4737:Section 4.2:1986:sub-clause 4.5.

A.12 Temporary Disconnection Record

This information can be recorded on the Corrective Maintenance Report (see item A11 above), or there may be a separate document. The customer is to be informed of the loss of security on the alarm system and asked to sign the document. A record of temporary disconnections is required by BS 4737:Section 4.2:1986:sub-clause 4.6.

A.13 Aids to System Design: see NACP 10: Appendix A: Item A2. BS 4737:Section 4.1:1987 also refers.

A.14 Aids to Correct Handover Procedure

Section 10 of NACP 2 lists items to be included during handover of a system to the customer and may form the basis for an alarm company=s own handover procedure document.

Company Name: Company Address:
 Telephone No:

HANDOVER CHECKLIST FOR INTRUDER ALARMS SYSTEMS

Customer:

Address:

Job No.....Date	Tick When Checked	Remarks
1. Check that the installation is in strict accordance with the Specification, complies with BS 4737 and is to a high standard of workmanship.		
2. Check that the subscriber=s premises are left in a tidy condition.		
3. Check all detection circuits are clearly indicated.		
4. Log all detection circuit insulation and continuity/resistance measurements.		
5. Check mains connection is permanently connected and NOT by plug and socket.		
6. Check that the supply fuses to the alarm installation have the correct rating.		
7. Check that all batteries are clearly marked with date of installation.		
8. Log the normal DC current loadings of all power supplies.		
9. Remove the mains supply and check that the battery voltage of all equipment is within the specified limits and the system operates normally.		
10. Check that there is adequate standby battery capacity to meet BS 4737.		
11. Check the operation of the audible alarm on system activation and when the hold off voltage is removed from any self activating device.		
12. Check remote signalling apparatus ensuring correct transmission and receipt of all conditions.		
13. Check that the engineer only reset facilities are available where applicable.		
14. Check the operation of all tamper detection circuits.		
15. Check every detector for correct operation through to the Control Units.		
16. Check and record the area or volume of coverage of movement / vibration detectors.		
17. Check beam interruption detectors for correct alignment.		
18. Check that system operating procedure is displayed near to Control Unit.		
19. Check the exit/entry route time delay (if used) for correct setting and record times.		
20. Set system. Operate a detector device. Check the resulting alarm condition is correctly signalled.		
21. The subscriber is to be shown the extent of the protection and correct operation of the system.		
22. Check that all documentation in accordance with BS 4737 is correct. (It is recognised that some checks under this heading may be subsequent).		
23. Record the number of the Certificate issued in accordance with the Council=s Rules.		
24. Obtain subscriber=s signature acknowledging receipt of system keys.		
25. Check that all surplus materials and equipment are cleared from the site.		

GENERAL REMARKS:

Engineer: Supervisor:

COMPLETION CERTIFICATE

Customer:.....Ref:

Address:

.....

.....

System Record Reference:.....Dated:

I confirm that the intruder alarm system has been installed to my satisfaction and that I have received:

1. a demonstration and instructions on how to operate the alarm system.
2. security code number for the alarm system or keys.
3. full and comprehensive written operating instructions for the alarm system.
4. a record book (system log book) for the alarm system.

Customer's Signature:

.....

Signature on behalf of Installing Firm:

.....

Date:

.....

NACP 11 Att.2

**HISTORICAL RECORD
for
INTRUDER ALARM**

Customer
Installation Address
.....
Installer/Maintainer

Record of visits made to the above installation. This record is to be completed by the maintenance engineer at every visit. It is not a customer document.

TYPE OF SIGNALLING: AUDIBLE ONLY/REMOTE SIGNALLING

DATE	DOCKET No	REASON FOR VISIT	SIGNATURE

See next page for record of operational measurements taken during system commissioning. It is important that this information is retained.

**RECORD OF OPERATIONAL CHECKS
(BS4737 : Section 4.1 :1987)**

Cct/ zone	Location	Resistance (Ohms)		Detector voltage	BATTERY CHARGING VOLTAGE	
		Detector	Tamper		..... VOLTS	
					POWER SUPPLY CURRENT (NORMAL)	
					..... mA	
					POWER SUPPLY CURRENT (IN ALARM)	
					..... mA	
					BATTERY CURRENT (MAINS SUPPLY DISCONNECTED)	
					.....mA	
WARNING DEVICES						
					INPUT VOLTAGE TO SAB	SAB CHARGING CURRENT CHECKED
					1	volts (Tick)
					2	volts (Tick)

SYSTEM ATTRIBUTES

BELL DELAY	..... m	PERSONAL ATTACK	SILENT/AUDIBLE
BELL DURATION	..... m	RESET*	CUSTOMER/ENGINEER
ENTRY TIME	..... s	LINE FAULT MONITOR	SILENT/AUDIBLE
EXIT TIME	..... s	BATTERY CAPACITY	..... Ah

*See BS4737, Part 1 : 1986,
clause 5.5

SIGNATURES	DATE
ENGINEER	
SUPERVISOR	

Company Name:
and Address:

Serial Number

PREVENTATIVE MAINTENANCE REPORT

Customer:

Address:

.....

Type of Installation: AUDIBLE ONLY / REMOTE SIGNALLING (delete as necessary).

The following checks have been carried out in accordance with BS 4737 as currently in force.

Item	Check	Tick when complete	Remarks
1	Check the installation, location and siting of all equipment and devices against the specification.		
2	Check the satisfactory operation of all detection devices including deliberately operated devices.		
3	Inspect all flexible connections.		
4	Check mains and stand-by power supplies including correct charging rates.		
5	Check control unit for correct operation.		
6	Check remote signalling equipment (intelligibility to be ascertained).		
7	Test (where possible) remote signalling equipment to C/S or Police Station.		
8	Check all audible warning and alarm devices for correct operation.		
9	Check the alarm system is fully operational.		

The system has been left in full working order apart from the items listed below:

Items not completed at the time of the check must be completed within 21 days of the date shown.

Time arrived Time left

Engineer=s Signature Date

Customer / Customer Representative=s Signature

National Security Inspectorate
Sentinel House, 5 Reform Road
Maidenhead, Berkshire SL6 8BY

Telephone: 0845 006 3003 Fax: 01628 773367

E-mail: nsi@nsi.org.uk

Web: www.nsi.org.uk