

**NACOSS TECHNICAL MEMORANDUM**

**Ref. NATM 8**

**SUBJECT: RECOMMENDATIONS FOR REMOTE SIGNALLING INTRUDER  
ALARM SYSTEMS CONNECTED TO REDCARE SIGNALLING**

This Technical Memorandum gives guidelines regarding the installation and maintenance of remote signalling intruder alarm systems connected to RedCARE signalling.

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### RECOMMENDATIONS FOR REMOTE SIGNALLING INTRUDER ALARM SYSTEM CONNECTED TO REDCARE SIGNALLING

#### INTRODUCTION

When the BS 4737 series of documents was published in 1986/87, RedCARE signalling systems were not developed.

There has been significant growth in the number of installed systems connected to this signalling technology. However, there are reported to be shortcomings with some installations and NACOSS has felt it appropriate, by means of this Technical Memorandum, to draw attention to certain important aspects and to make certain recommendations.

#### RECOMMENDATIONS

Installers of intruder alarm systems connected to RedCARE signalling equipment should follow the instructions provided by the suppliers of RedCARE relating to the planning, installation and maintenance of such systems.

It is possible that the incidence of 'No Response' signals from these systems could be increased if suppliers' instructions are not followed.

Installers should refer to guidance material published by suppliers of RedCARE equipment such as:-

- C RedCARE Installation Guide issued in filofax form (Issue 1, 10/94);
- C Documents published later.

The following recommendations are given:-

- a) Where radio interference is experienced, a block terminal incorporating a radio filter approved by the supplier of RedCARE should be used.
- b) Noise or distortion on the line may cause "polling over speech" and where this occurs the fault should be reported to BT (see trouble shooting sections of the RedCARE Installation Guide).
- c) All connections should be properly made to avoid high resistances.

- d) A test should be made at the Subscriber Termination Unit (STU) for 50 volts DC on the telephone line using a digital volt meter.

**Note:** Some lines on multi-line switchboards may be "earth calling" in which case the telephone receiver should be lifted so that the earth connection is made before the test is carried out.

- e) EUROSTUs should be fitted with a Gas Discharge Tube (GDT) transient protector (see section 6 of the Installation Guide).

**Note:** All later variants, Plug-In STU, 3GSTU and BLU STU have on-board transient protection.

- f) The Ringer Equivalence Number (REN) rating for each exchange line should not exceed 4.0. A telephone provided by BT is assumed to have a REN value of 1.0 unless otherwise marked and STUs should be regarded as having a REN value of 1.0 unless stated otherwise. For further guidance on REN values for particular items of equipment the Telecom Red Helpdesk should be contacted (see also sections 3, 4, 5 and 6 of the Installation Guide).

- g) Certain types of equipment including some modems, facsimile machines and electronic point-of-sale equipment are not compatible to the RedCARE system. Where there is doubt about compatibility, the Telecom Red Helpdesk should be contacted. Also, it is important that customers are advised that not all equipment is compatible with RedCARE.

The following recommendations relating to remote signalling intruder alarm systems incorporating RedCARE telephone line monitoring should be complied with by NACOSS Recognised installers of intruder alarm systems:-

- 1) Block terminals should be located near to the main control panel (as distinct from the remote keypad) of an intruder alarm system. To help achieve this, the required location of the BT block terminal should be stated clearly and accurately on the order form for its supply and fitment.

**Note:** For the avoidance of doubt/error, it is important that the room or area in which the main control panel is situated should be also stated on the order form for the block terminal. This is particularly important because if words to the effect that the block terminal should be fitted "near the alarm control panel" are read without qualification, an occupier of premises may lead the visiting BT engineer to a remote keypad, instead of leading him/her to the main control panel.

- 2) Connections to block terminals should be correctly made at the connectors provided (usually screw terminals) on the customer side of the block terminal. In the rare cases where insulation displacement connectors only are provided on the customer side of the block terminal, connections should be properly made using an approved tool, not a screwdriver.
- 3) The power supply to Subscriber Termination Units (STU) should be in accordance with the equipment supplier's requirements given in the current issue of the RedCARE Installation Guide or subsequent issues. (see sections 3, 4, 5 and 6 of the Installation Guide).
- 4) A visual check should be made at the block terminal to ensure that both legs of the telephone line are connected.
- 5) The Ringer Equivalence Number (REN) for each exchange line should be estimated at

the time of installation and the value of REN should be recorded. Any assumptions about the REN value of un-marked equipment should also be recorded.

- 6) The intruder alarm system should only be handed over to the customer if the estimated REN value is less than or equal to 4.0.
- 7) The specification for the installed intruder alarm system given to the customer should state that REN value should not at any time exceed 4.0.
- 8) The REN value should be re-estimated at every site visit and the value of REN should be recorded. If, the REN value is found to exceed 4.0, the customer should be advised to disconnect equipment so that the REN value is reduced to 4.0 or less and should be informed in writing of the potential 'No Response' hazard of a high REN value.
- 9) In the case of an intruder alarm system connected to RedCARE signalling equipment, the handover procedures given in Section 10 of NACOSS Code of Practice NACP 2 should be extended to include the following:-
  - C During handover of the intruder alarm system to the customer, the customer should be informed that the REN value of all the equipment on the exchange telephone line connected to the RedCARE system is counted and should not at any time be allowed to exceed 4.0. The possible "No Response" hazard of a high REN value should be explained to the customer.
  - C Also, during handover, the customer should be informed that certain types of equipment including some modems, facsimile machines and electronic point-of-sale equipment are not compatible with the RedCARE system and should be advised not to connect any equipment other than ordinary speech telephone equipment to the telephone line to which the RedCARE equipment is connected without first consulting with their alarm company.