SD1+

Speech Dialler

Installation and Programming Guide

COOPER Safety

MENVIER SECURITY

Contents

NOTES:

Introduction

This manual describes how to install and program all SD1+ units manufactured after June 2008. Note that the programming menu for units made after that date is slightly different from the menu in older versions of the SD1+, and the recording time has been lengthened to 25 seconds per message.

Overview

The SD1+ sends pre-recorded voice messages over a conventional telephone line whenever external equipment triggers one of its four inputs.

Any equipment that has a voltage-free contact as an output can provide an input to the unit. Each input, labelled A, B, C or D, triggers the corresponding stored message A, B, C or D. In the example shown below these inputs are: A- fire, B- Personal Attack (PA), C- Burglary and D- Auxiliary.
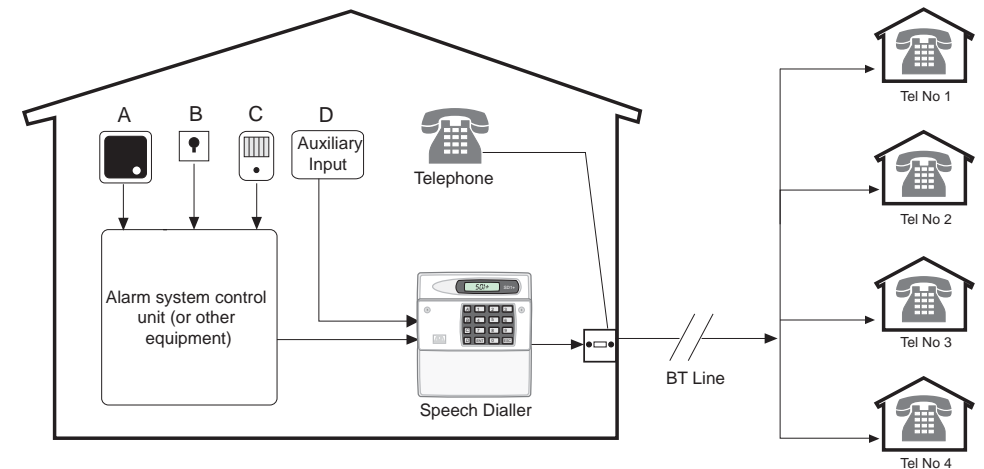
The SD1+ also requires a 12VDC supply. Alarm control units, for example, often provide such a supply for connected equipment.

When connected to a telephone line the SD1+ behaves like another extension and does not normally affect the operation of any telephone or other equipment also connected to the line. While the SD1+ is sending a voice message other users on the line will hear it should they lift their handset.

RECORDING MESSAGES

The SD1+ has a built in microphone to let you record messages directly into the unit.

Each message comprises two phrases: a common phrase (labelled '0') and one of phrases A, B, C or D. The common phrase normally tells the recipient where the message comes from, and the second phrase tells the recipient what input has been activated.

Each phrase can be up to 25 seconds long.

PLAYING BACK MESSAGES

The unit's built-in speaker lets you hear any of the recorded messages. When you play a message, the SD1+ always plays phrase 0 first.

TELEPHONE NUMBERS

The SD1+ can store up to four different telephone numbers, each one up to 24 digits long. You can program and check the numbers from the unit's keypad and display.

The SD1+ uses pulse or tone dialling, and you can insert pauses for slow-responding exchanges.

You can also program the SD1+ to send numerical messages to pagers. The unit adds a single digit at the end of the pager message to indicate which input has been triggered.

DELETING MESSAGES AND TELEPHONE NUMBERS

The SD1+ stores the recorded messages and telephone numbers internally, and you cannot delete them simply by removing the power supply. A programming option allows you to delete all messages or telephone numbers at once if you wish to do so, or you can delete them individually.

CALL ROUTING

You can program the SD1+ so that each trigger input will send its associated message to any of the stored telephone numbers. For example, if you wish the unit to call four different numbers under three different conditions you could program trigger A to call telephone number 1, trigger B to call telephone numbers 2 and 3, and trigger C to call telephone numbers 1, 2, 3 and 4.

Problem	Possible Cause	Action
The recipient can't acknowledge the call with a mobile phone.	Weak reception or incompatible telephone.	Mobile phones will only work correctly if they are used in an area where the reception is good.
The recipient has acknowledged the call but the SD1+ continues to dial the second, third or fourth number.	The "*CLEARBY*" option is set to: "*ANY-2*" or "*ANY-3*" or "*ALL-4*"	Check that the option is at the required setting.
I am pressing the ENT key for 6 seconds, but I cannot get the "*READY*" prompt and the display still shows "*PLEASE RECORD*" or "*SD1+*".	You must key in a four digit passcode to gain access to the programming menu.	Enter your user passcode (page 11).

Trouble Shooting Guide

Problem	Possible Cause	Action
The SD1+ will not trigger from the alarm panel.	Incorrect polarity setting.	Check that the jumper link is set to the correct position (see page 7).
	Incorrect trigger voltage.	Measure trigger voltage and check connections (see page 7).
An input has triggered the unit but the display shows "*SD1+*" all the time.	The SD1+ does not display anything except for "*SD1+*" whilst it is triggered.	To see the status of the SD1+ when triggered use the "Test Call" option (page 28).
The unit will not dial the programmed telephone number.	Number entered incorrectly.	Check that you have keyed-in the number correctly.
	The unit is dialling out through an internal telephone exchange (PABX) that needs a pause after initial "9".	Make sure that you have programmed a pause into the number after the initial "9" (page 14).
	The unit is wired to an exchange that needs a special button pressed to select a line.	The unit cannot be with this type of exchange. Connect it to a standard BT line.
	Incorrect telephone line connections.	Check the connections to the telephone line (see page).
The recipient of the call cannot acknowledge the unit by pressing the "8" button.	Incorrect acknowledgement procedure.	Instruct the recipient in the correct procedure (see pages 3 and 27).
	The recipient is using an incompatible telephone.	Call the recipient and ask them to press the "8" button on their telephone. If you hear anything other than a tone, the telephone is not capable of acknowledging the SD1+. This may be overcome by using a tone pad to simulate the dialling tones. Contact your installation company for details.

THREE WAY CALLING

This is a service normally provided by British Telecom. If the service is enabled then the SD1+ will use it to prevent anyone trying to block the telephone line.

CALL ATTEMPTS

When triggered the SD1+ rings a programmed number and waits 55 seconds (about 20 rings) for an answer. If the called phone does not answer then the SD1+ hangs up and tries again immediately. If the called number does not answer for a second time the SD1+ hangs up and waits five seconds, then calls again for the last time. If the destination still does not answer the SD1+ hangs up and operates the Fail output (if programmed) for seven seconds.

ACKNOWLEDGEMENT OPTIONS

Once the SD1+ has made a call and delivered a message, it needs a return signal to show that the message has been successfully received. If a person is taking the call they can acknowledge the message by pressing the number "8" on the their telephone keypad. When the SD1+receives a digit "8" it will stop attempting to send that message until it is triggered again. You can program how many times each message must be acknowledged.

LAST CALL LOG

The SD1+ keeps a log of the last call it has made. The log also shows which input was triggered last.

CALL ABORT

If required, you can program the SD1+ so that one of the following events will abort a call:

> Applying a signal to the Abort input (shared with input D).

> Removing the input that triggered the unit.

> Keying in the user passcode.

When aborted the unit will stop dialling out immediately, play a chime tone, and show "ABORTED" on the display for a few seconds.

PROGRAMMABLE OUTPUT

The SD1+ has a single programmable output. When active the output applies 0V to its terminal and is capable of sinking up to 100mA of current.

You can program the SD1+ to activate the output for one of the following conditions:

The unit has been triggered and is making calls. The output is active from the trigger event until the last required acknowledgement, or until the whole series of calls has failed.

A call has been successfully acknowledged. The output is active for seven seconds when the unit receives the last required acknowledge signal.

The SD1+ failed to communicate. The output is active for seven seconds when the SD1+ finally stops calling.

SENDING A TEST CALL

Once programmed you can test each message by sending it to a selected telephone number. When the unit is in test mode the speaker relays everything that the unit sends over the telephone line, and the display gives a visual indication of what is happening.

PASSCODE

To enter programming mode or to cancel calls you must key in a passcode at the keypad. The passcode is normally four digits long, but if necessary you can program the SD1+ to accept six-digit passcodes for greater security.

Specifications

Power input:	11.5V - 14V
Current consumption:	35mA (standby); 70mA (Active)
Trigger inputs:	A, B, C, D (+ve or -ve applied, input voltage 5 - 28V)
Phrases A,B,C,D,0:	25 seconds ± 2 seconds each, sampled at 8KHz
Telephone Numbers:	4 x 24 digit telephone numbers
Case dimensions:	150(L) x 104(H) x 30(D) mm
REN value:	0

Display Messages

PLEASE RECORD — The unit has no stored messages or telephone numbers.

SD1+ — Either: The unit is in normal standby OR: the unit is dialling out after an input has triggered it.

ABORTED — A user keyed in a passcode to abort a call while the SD1+ was attempting to dial out. The unit displays this message for aborted activations, but NOT for aborted test calls.

The unit displays the following messages during a test call, but NOT during a normal activation:

RINGING — The unit has detected a ringing signal on the telephone line.

ENGAGED — The target phone is engaged. Wait until they have finished and try again.

UNOBTAIN — The unit has detected the Unobtainable or Special Information Tone. Check that the number is correct and try again.

SENT OK — The unit dialled out, sent the message and was acknowledged correctly by the recipient.

NO REPLY — The call was not answered or acknowledged by the recipient.

PAGED — If you have programmed the unit to send a pager number, the SD1+ will show this message when it has sent the pager message.

Options Ⓐ Ⓑ Ⓒ Ⓓ : Testing Messages

To test a message and it's telephone numbers:

1. Make sure the SD1+ is not currently sending any messages.

2. Key in the current passcode.

3. Press either Ⓐ, Ⓑ, Ⓒ or Ⓓ depending on which message you want to test. The display shows, for example "*SEND A*" alternating with "*ON 1-4*":

EITHER:

A) Press Ⓐ.

    The unit plays message 0 followed by message A. The display shows, for example "*PHRASE A*":

☞   If you wait five seconds without pressing a key then SD1+ plays message 0 followed by the message associated with the key you pressed in step 3.

    Once the SD1+ has finished playing the messages the screen shows "*READY*":

OR:

B) Press a digit 1 to 4. The SD1+ sends message 0 and the message A (or B or C or D depending on the key you pressed in step 3) to the telephone number you selected (1 to 4).

☞   Note: Ask the person answering the call to acknowledge the message by pressing '8' on their phone keypad. Otherwise the SD1+ will work through a complete cycle of four calls for that message.

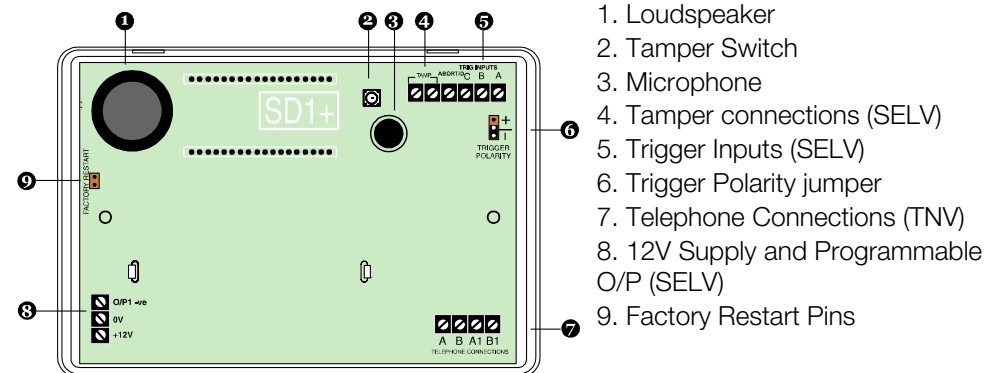| *SD1+* |
| *READY* |
| *SEND A* |
| *ON 1-4* |
| *PHRASE A* |
| *READY* |

Installation

Installation Requirements

The SD1+ is designed for connection to an intruder alarm control panel or similar equipment. The control panel must have an auxiliary power output of between 11.5V and 14V, with the ability to provide a minimum of 100mA.

Cooper Security supplies the SD1+ with a 2 metre telephone lead which will plug directly into any standard BT socket. Cooper Security recommend that you site the SD1+ as near to a BT telephone socket as possible. If this it not possible you can either use an approved BT extension lead or wire the unit to the BT. socket (see page 8).

Mounting Instructions

1. Separate the cover from the base by using a screwdriver to push two of the retaining clips (top or bottom) inwards from the base indents. Remove cover assembly and store in a safe place.

2. Hold the base in position (keyhole to the top) and mark the three securing holes. Remove the base then drill and plug the holes.

3. Pass all cables into the base through the cable entries and then secure the base to wall.

PCB Layout

1. Loudspeaker
2. Tamper Switch
3. Microphone
4. Tamper connections (SELV)
5. Trigger Inputs (SELV)
6. Trigger Polarity jumper
7. Telephone Connections (TNV)
8. 12V Supply and Programmable O/P (SELV)
9. Factory Restart Pins

SELV = Safety Extra Low Voltage, TNV= Telecommunications Network Voltage.

SD1+ Connections

Caution: Before making any connections to the SD1+ remove the power (battery and 240V mains) from the equipment you intend to connect the unit to.

☛ Connections on the SD1+ are either "Safety Extra-Low Voltage" circuits (SELV) or "Telecommunication Network Voltages" circuits (TNV). Connect TNV circuits only to the PSTN. Connect SELV circuits only to other circuits designated as SELV circuits.

☛ Route cabling to the telephone line connections (TNV) well away from the trigger input circuitry (SELV). Route cabling to the trigger input circuitry (SELV) well away from the telephone circuitry (TNV).

The SD1+ provides the following connections:

Trig Inputs (see figure on page for connection diagram):

A: When triggered, the unit starts the dialling sequence and sends message A.

B: When triggered, the unit starts the dialling sequence and sends message B.

C: When triggered, the unit starts the dialling sequence and sends message C.

ABORT/D: If the SD1+ is programmed as "ABORT by INPUT" this connection can be used to abort the dialling sequence. If the SD1+ is not programmed as "ABORT by INPUT" this connection can used as trigger input D.

☛ You can select Trigger/Abort inputs to be either +ve applied to trigger or -ve applied to trigger. Set the "Trigger Polarity" jumper-link to the appropriate position (see figure on page).

TAMP: These two voltage free terminals are connected directly to the normally closed tamper switch. You can connect them to the main tamper zone on the alarm control panel, to provide case tamper protection for the SD1+.

0V: Connect to a permanent 0V supply on the control panel.

+12V: Connect to a permanent +12V supply on the control panel.

O/P1:   A switched -ve @100mA programmable output (see page 23).

Option ⓪: Acknowledgement Options

Once the SD1+ has made a call and delivered a message, it needs a signal to say that the message has been successfully received. This is done by the recipient pressing the number "8" on their telephone. When the SD1+ receives the "8" it stops attempting to send that message until triggered again.

Option 0 determines how many calls must be acknowledged before the SD1+ stops attempting to send a message.

1.   If necessary initialise the SD1+ .

    `SD1+`

2.   Key in the current passcode.

    `READY`

3.   Press ⓪, the display shows:

    `CLRBY-`

4.   Press ⒺⓃⓉ, the display shows the current acknowledgement option, for example:

    `ANY-1`

The options available are:

   "`ANY-1`" at least one call must be acknowledged.

   "`ANY-2`" at least two calls must be acknowledged.

   "`ANY-3`" at least three calls must be acknowledged.

   "`ANY-4`" all four calls must be acknowledged.

   "`NO-ONE`" no acknowledgement required.

5.   Press B repeatedly until the display shows the option you want to use, for example:

    `ANY-2`

5.   Press ⒺⓃⓉ to save the change and return to "`READY`".

    `READY`

☛ Note: If you select `NO-ONE` and also program the output as `FAILED` (see page 23) then the output will not operate.

Option ⑨: Last Call Log

Once someone has acknowledged a call, the SD1+ stores a record of the event. You can see that record using option 9.

1. If necessary initialise the SD1+ .

   _SD1+_

2. Key in the current passcode.

   READY

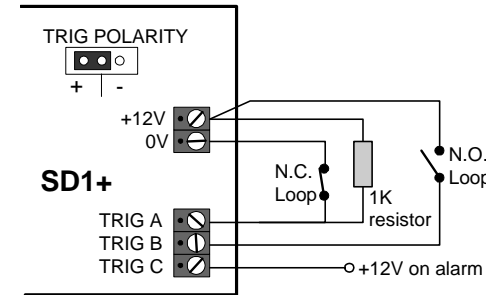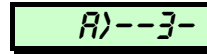3. Press ⑨, the display shows:

   VIEWLOG-

4. Press [ENT].
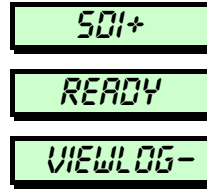
   The display shows the last event recorded by the unit. In the example shown at the right, the unit sent message A to telephone number 3, which acknowledged the call.
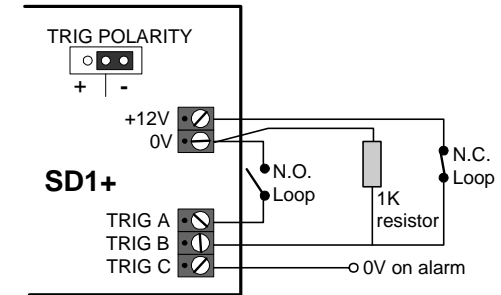
   _A)--3-_

   If the display shows:
   "_A)----_" then none of the calls for message A were acknowledged.
   "_BLANK_" then the log is empty.

5. Press [ENT] to return to "_READY_".

   READY

TRIG A = Normally Closed Input
TRIG B = Normally Open Input
TRIG C = Switched +ve Input

TRIG A = Normally Open Input
TRIG B = Normally Closed Input
TRIG C = Switched -ve Input

CONTROL PANEL CONNECTIONS

The table below lists the connection details to various control panels.

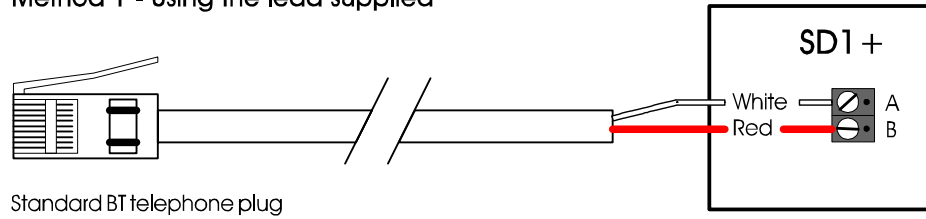| Control Panel	TRIG A	TRIG B Fire	TRIG C PA	Polarity	Supply +	Supply -	Trigger Type
Menvier TS400/TS410	Zone 4	Zone 5	ALM	-	Aux +	Aux -	0V app.
Menvier TS510	N/A	OP 2 *	OP 1 *	+	Aux +	Aux -	12V app.
Menvier TS690R	OP 1	OP 2	OP 3	-	Aux +	Aux -	0V app.
Menvier TS690/TS700	Digi 1	Digi 2	Digi 3	-	Aux +	Aux -	0V app.
Menvier TS790/TS900/TS2500	Digi 1	Digi 2	Digi 3	-	Aux+	Aux -	0V app.
A1 Advantage	N/A	N/A	Bell -	-	Aux +	Aux -	0V app.
ADE Optima XM	N/A	N/A	B	-	13V +	13V -	0V app.
ADE Optima 2+	Fire	PA	Intruder	-	13V +	13V -	0V app.
ADE Concept 6	N/A	N/A	B	-	13V +	13V -	0V app.
ADE Accenta 6	N/A	N/A	B	-	13V +	13V -	0V app.
Ademco Infra 6	N/A	N/A	3	+	Aux +	Aux -	12V app.
Ademco Infra 16	1*	2	3	+	Aux +	Aux -	12V app.
C & K 700L	N/A	N/A	S-	-	Aux +	Aux -	0V app.
CQR Premia 9	FA *	PA	IA	+	Aux 12V	Aux 0V	12V app.
DA Abacus 6	N/A	N/A	Bell	-	+12V	0V	0V app.
DA Abacus 8	N/A	N/A	Bell	-	+12V	0V	0V app.
Gardtec 500 Series	N/A	N/A	Bell -	-	Power +	Power -	0V app.
Gardtec 800 Series	D1 *	PA	12Hr	-	12V	0V	0V app.
JSB Regent	COM1	COM2	COM3	+	12V	0V	12V app.
Pyronix Paragon + /E	N/A	N/A	BA	-	Aux +	Aux -	0V app.
Pyronix Octagon	N/A	PA	ALM	-	Aux +	Aux -	0V app.
Pyronix Conqueror	N/A	N/A	BA	-	Aux +	Aux -	0V app.
Scantronic 9448	N/A	COM 2	COM 3	-	12V	0V	5V rem.
Scantronic 9452/3	N/A	COM 1	COM 3	-	Aux 12V	Aux 0V	5V rem.
Scantronic 9454	N/A	COM 1	COM 3	-	12V	0V	5V rem.
Scantronic 9455	N/A	COM 1	COM 3	-	12V	0V	5V rem.
Texecom Veritas R8	N/A	N/A	B	-	Aux +	Aux -	0V app.
Texecom Veritas 8 Compact	N/A	N/A	B	-	Aux +	Aux -	0V app.

* Control panel output requires programming.

When using the bell output to trigger the SD1+, you may find that the external sounder is partially triggered. If this is the case you will need to fit a 1k resistor between the SD1+ trigger input and 12V.
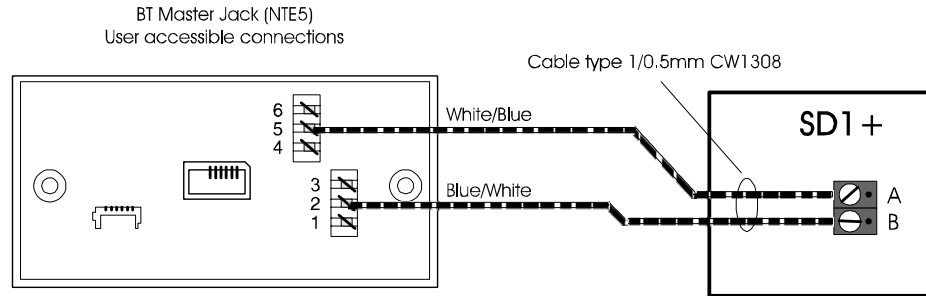
BT. CONNECTIONS

1. Connect telephone line using one of the methods shown below:

2. Replace the plastic cover over the telephone line connections.

Method 1 - Using the lead supplied

SD1+

White — A
Red — B

Standard BT telephone plug

Method 2 - Hard wired connections

BT Master Jack (NTE5)
User accessible connections

Cable type 1/0.5mm CW1308

6
5
4

White/Blue

SD1+

3
2
1

Blue/White

A
B

Option ⟨8⟩: Abort Options

Occasionally you may trigger the SD1+ by accident and cause it to send an unwanted call. Option 8 allows you to select one of three methods of cancelling a call:
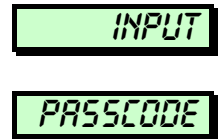
"*INPUT*"   applying a signal to the Abort input.

"*RESTORE*" removing the trigger signal.

"*PASSCODE*"   entering the passcode.

You can also prevent anyone cancelling a call by selecting "*NONE*".

1. If necessary initialise the SD1+ .

2. Key in the current passcode.

3. Press ⟨8⟩, the display shows:

4. Press ⟨ENT⟩.
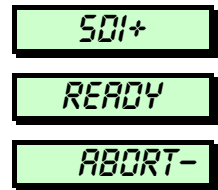
    The display shows the current method used to cancel a call, for example:

5. Press ⟨B⟩ repeatedly until the display shows the method that you want to use, for example:

6. Press ⟨ENT⟩ to store the change and return to "*READY*".

SD1+

READY

ABORT-

INPUT

PASSCODE

READY

Option ⑦: Call Routing

You can program messages A, B, C or D so that they report to one or more of the four telephone numbers. For example: message A might report to telephone numbers 1, 3 and 4, but NOT to number 2.

1. If necessary initialise the SD1+ .

    | SD1+ |

2. Key in the current passcode.

    | READY |

3. Press ⑦, the display shows:

    | ROUTE- |

4. Press ENT.

    The display shows the telephone numbers that message A reports to. In the example on the right, message A goes to telephone numbers. 1 and 3.

    | A)1-3- |

5. Press ①, ②, ③ or ④ until the display shows the telephone numbers that you want the message A to go to, for example:

    | A)-2-4 |

6. Press B repeatedly to see what destinations the other messages go to, for example:

    | C)---4 |

7. Repeat steps 5 and 6 until you have allocated all the messages to their correct telephone numbers.

8. Press ENT to accept the new option and return to "READY".

    | READY |

Commissioning

Once you have made all the necessary connections, fit the cover back onto the base and apply power to the SD1+.

When you power up a new SD1+ for the first time the memory is blank: there are no stored telephone numbers or messages. When there are no stored messages or telephone numbers the display shows:

| PLEASE RECORD |

Key in ①②③④.

| READY |

The SD1+ is now in programming mode. The display shows:

☞ If you do not operate the unit for 60s then it will leave programming mode by itself. Simply key-in the passcode again to re-enter programming mode.

If you are unfamiliar with programming a SD1+, then here is a list of the minimum items you must program in order to get the unit working.

Store the telephone number of the person you wish to receive the message (page 14).

Record Phrase 0, giving the location of the unit, or of the equipment being monitored (page 18).

Record a phrase for each input A, B, C or D that is connected to the unit (page 18).

Test the message and destination by starting a test call (page 28).

Tell the person who is going to receive the call how to acknowledge it (press '8' on their telephone keypad, see page 3).

If you wish to allow a user to abort a call then see page 25.

Once you have finished programming and testing the unit, press ESC until the display shows:

| SD1+ |

The SD1+ is now in standby mode, ready for operation.

While the SD1+ is in standby the display continues to show "SD1+" You can re-enter programming mode if you need to by keying in the passcode.

When the SD1+ is making a call, the display continues to show "SD1+" but the unit will not allow you to enter programming mode. If you have programmed the unit to allow a user to abort the call, then entering the passcode will stop the call immediately.

The following pages tell you how to program the unit in more detail, and how to set up some of the more complex functions.

Option ⑥: Programmable Output

The SD1+ has a single output. Using option 6 you can program this output to operate under one of the following conditions:

a) When an active input triggers the unit (the display shows this as "*ACTIVE*").

b) When someone acknowledges a call from the SD1+ (shown as "*SUCCESS*").

c) When the SD1+ has dialled all numbers but has NOT been acknowledged (shown as "*FAILED*").

☛ If you wish to disable the output, you can set it to "*OFF*".

1. If necessary initialise the SD1+ .

<div align="right">`SD1+`</div>

2. Key in the current passcode.

<div align="right">`READY`</div>

3. Press ⑥, the display shows:

<div align="right">`OUTPUT-`</div>

4. Press ENT.

    The display shows the current output type, for example:

<div align="right">`ACTIVE`</div>

5. Press B. until the display shows the output type you want to use, for example:

<div align="right">`SUCCESS`</div>

6. Press ENT to accept the new option and return to "*READY*".

<div align="right">`READY`</div>

☛ Note: If you select *FAILED*, and also set the acknowledgement option to *NO-ONE* (see page 27) then the output will not operate.

Option ⑤: Changing Your Passcode Type

When delivered from the factory, (or if you have just initialised the unit) the SD1+ uses four-digit passcodes. If you want to use a longer passcode, use option 5 to set up six-digit passcodes.

☛ When you change from four-digit to six-digit passcodes SD1+ adds "00" to the end of your current passcode.

If you want to change back from six-digit to four-digit passcodes, use option 5 again.

☛ If you change from six-digit to four-digit passcodes, SD1+ removes the last two digits from the end of your current passcode.

1. If necessary initialise the SD1+ .

   `SD1+`

2. Key in the current passcode.

   `READY`

3. Press ⑤, the display shows:

   `C.TYPE-`

4. Press ᴱᴺᵀ.

   If the SD1+ is currently using four-digit passcodes the display shows:

   `4. CODE`

   If the SD1+ is using six digit passcodes the display shows:

   `6. CODE`

5. Press Ⓑ. until the display shows the code length you want to use, for example:

   `6. CODE`

6. Press ᴱᴺᵀ to accept the new passcode length and return to "READY".

   `READY`

Programming

Entering Programming Mode

To gain access to the program menus you must key in a passcode. The default passcode is ①②③④.

1. In stand-by mode (not communicating) the display shows:

   `SD1+`

2. Key in your user code, for example ①②③④. The display shows:

   `READY`

   The SD1+ is now in programming mode.

Leaving Programming Mode

1. Make sure the SD1+ is at the top level of the programming menu (the screen shows "READY").

   `READY`

2. Press ᴱˢᶜ. The screen shows `SD1+` and you have left programming mode.

   `SD1+`

Initialising a Unit

When you power up a new SD1+ for the first time the memory is blank and the display shows "`PLEASE RECORD`". Once you have stored messages and telephone numbers in the unit the display shows "`SD1+`" when you return to standby mode. If you want to return a unit to its blank state you can initialise it as follows:

   `PLEASE`
   `RECORD`

1. Remove all power from the unit.

2. Hold down ⑨ and reapply power. Release ⑨. The display shows:

   `ERASE?`

3. Press ᴱᴺᵀ. The display shows:

   `LANG ?`

4. Press ᴱˢᶜ. The display shows:

   `PLEASE`
   `RECORD`

5. Key in the default pass code ①②③④. The display shows:

   `READY`

The SD1+ is now in programming mode. It has no stored messages or telephone numbers. The passcode is ⌈1⌉⌈2⌉⌈3⌉⌈4⌉.

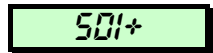Note: If you wish, you can also initialise the unit as follows:

1. Remove all power from the SD1+ .

2. Fit a jumper to the reset pins (see page).

3. Apply power to the SD1+.

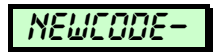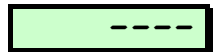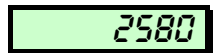4. Remove the jumper from the reset pins.

Option ⌈4⌉: Changing Your Passcode

To change the programming of the SD1+ you must first key in a passcode. In addition, you can use the same passcode to abort a call if it was started by accident (and if the SD1+ if programmed to allow you to do so, see page 25).

When delivered from the factory (or if you have initialised the unit) the passcode is ⌈1⌉⌈2⌉⌈3⌉⌈4⌉. Use option 4 to change your passcode to another set of digits. The passcode is normally four digits long, but you can make it six digits long (see page 22).

1. If necessary initialise the SD1+ . | 𝑆𝐷1+ |

2. Key in the current passcode. | 𝑅𝐸𝐴𝐷𝑌 |

3. Press ⌈4⌉, the display shows: | 𝑁𝐸𝑊𝐶𝑂𝐷𝐸− |

4. Press ⌈ENT⌉. The display shows a line of dashes: | − − − − |

5. Key in your new passcode, for example ⌈2⌉⌈5⌉⌈8⌉⌈0⌉. | 2580 |

6. Press ⌈ENT⌉ to store the new passcode and return to "𝑅𝐸𝐴𝐷𝑌". | 𝑅𝐸𝐴𝐷𝑌 |

Option ③: Erasing Messages/Telephone Numbers

If you wish to record a new set of phrases, or store a new set of telephone numbers, you must first delete the old ones. This option allows you to delete either telephone number or phrases without initialising the SD1+ again.

1. Key in the current passcode.

    `READY`

2. Press ③. The display shows "`ERASE-`" alternating with "`MSG/NUM`".

    `ERASE-`

    `MSG/NUM`

3. Press ENT. The display shows:

    `MESSAGES`

4. Press B repeatedly to display either "`MESSAGES`" or "`NUMBERS`", for example:

    `NUMBERS`

5. Press ENT to delete all the entries.
    If you selected "`NUMBERS`" in step 5 then the SD1+ deletes all telephone numbers. If you selected "`MESSAGES`" in step 5 then theSD1+ deletes all messages.
    The display now shows "`READY`".

    `READY`

☞ If you want to delete individual telephone numbers use option ①, see page 14.

☞ If you want to record over an individual phrase, you can do so. Use option 2, see page 18.

Programming Options
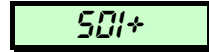
There are 10 programming options, one assigned to each number key. The keys A, B, C and D allow you to test the messages and telephone numbers that you program in. The table below lists the available options, and the page in this guide which describes each of them in more detail.

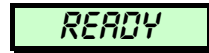| Key	Option	Display	Page
①	Store telephone numbers 1 to 4	`ENT 1-4`	14
②	Record Messages (home plus A to D)	`ENT 0-D`	18
③	Erase messages or telephone numbers	`ERASE-`	20
④	Change passcode	`NEWCODE-`	21
⑤	Change passcode length	`C,TYPE`	22
⑥	Program output	`OUPTUT-`	23
⑦	Call routing	`ROUTE-`	24
⑧	Abort options	`ABORT-`	25
⑨	View event log	`VIEWLOG`	26
⓪	Acknowledgement	`CLEARBY-`	27
A	Test message A	`SEND A`	28
B	Test message B	`SEND B`	28
C	Test message C	`SEND C`	28
D	Test message D	`SEND D`	28

Option 1: Storing Telephone Numbers

The SD1+ stores up to four telephone numbers, each up to 24 digits long. Make sure that you obtain permission from the person being called before storing their telephone number. DO NOT use the SD1+ to call the Police using an Emergency Service telephone number.
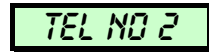
1. If necessary initialise the SD1+ .
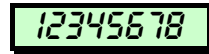
    ```
    SD1+
    ```
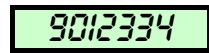
2. Key in the current passcode.

    ```
    READY
    ```

3. Press 1. The display shows:

    ```
    ENT 1-4
    ```

4. Press 1, 2, 3 or 4 to select telephone number 1, 2, 3 or 4. The display shows "*TEL NO* " alternating with the digits stored, for example:

    ```
    TEL NO 2
    ```
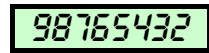
    If you wish to erase all the digits stored for that number press A.

    ```
    12345678
    ```

    The screen shows "*BLANK*" if the SD1+ does not have any digits stored for a number.

    ```
    9012334
    ```
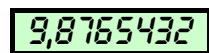
5. Key in the digits you wish to store.

    You can key in up to 24 digits for each number.

    ```
    98765432
    ```

    Key in B C if you want to enter a dial pause. The pause appears as a comma on the display, for example:

    ```
    9,8765432
    ```

    Each pause you enter causes the SD1+ to wait three seconds before dialling the rest of the telephone number.

    If you wish to correct a mis-keyed digit:

    a) Press A to move the cursor left.

    b) Key in the new digit.

    c) Press C repeatedly to move the cursor to the right hand end of the telephone number. You can now continue adding more digits to the end of the

The display shows "*REC*" and a number: The number counts down in seconds from 25 to show you the amount of time you have left for the phrase.

6. Press [ENT] again to stop recording. The display shows "*ENT 0-0*":

    ```
    ENT 0-0
    ```

7. Repeat steps 4, 5 and 6 to record the other phrases you need.

8. Press [ENT] again to return to "*READY*".

    ```
    READY
    ```

Option ②: Recording Messages

The SD1+ can transmit up to four messages. A message is made up of two phrases: phrase 0 plus one of phrases A, B, C or D. Each trigger (A, B, C or D) is linked to one of the phrases A, B, C or D.

Normally you should use phrase 0 to store the name and address of the premises. Use phrases A to D to store a short name for the condition triggering them (for example "Alarm" or "Fire").

It is also advisable to include the instruction "Press 8 to acknowledge" at the end of each of phrases A to D. For example:

Phrase 0: "This is Mr Smith, at 10 The Strand, East Fincham."

Phrase A: "The alarm has been activated. Please press 8 after the beep to acknowledge this call."

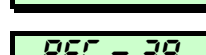Before you record the phrases it is a good idea to write down what you intend to say.

Note that the SD1+ can hold up to 25 seconds of sound for each phrases.

To record a phrase:

1. If necessary initialise the SD1+ .

   `SD1+`

2. Key in the current passcode.

   `READY`

3. Press ②. The display shows "`ENT 0-0`".

   `ENT 0-0`

4. Press ⓪, Ⓐ, Ⓑ, Ⓒ or Ⓓ to select the phrase you want to record. The display shows the word "`RECORD`" alternating with the word "`PHRASE`" and the phrase letter, for example:

   `RECORD`

   `PHRASE A`

5. Press ENT. SD1+ starts recording.
   Speak clearly.
   Stand about 15 to 20 centimetres from the unit.
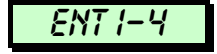
   `REC - 39`

---

number (or correct any other digit).

6. Press ENT to store the new telephone number and return to "`ENT 1-4`".

   `ENT 1-4`

   At this point you can select any phone number by pressing keys ①, ②, ③ or ④.

7. Press ENT again to return to "`READY`".

   `READY`

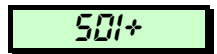☛ To comply with BABT regulations do NOT program any two telephone numbers to be the same.
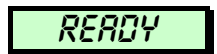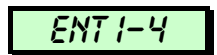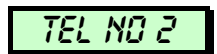
☛ Do NOT program the SD1+ to call the Police using the Emergency Services telephone numbers.

PROGRAMMING PAGER MESSAGES

When dialling a pager the SD1+ may have to wait before sending the message. To insert a pause enter "`M`" after the pager number. When the paging equipment answers the call, the SD1+ can send the message as normal, or precede it with a "star" or "hash". The SD1+ always terminates a pager message with a "hash".

Each pager service has its own requirements for pauses, star and hash. You may have to experiment to find the correct combination for the service you are using.

1. If necessary initialise the SD1+ .

   `SD1+`

2. Key in the current passcode.

   `READY`

3. Press ①.

   `ENT 1-4`

4. Press ①, ②, ③ or ④ to select telephone number 1, 2, 3 or 4. The display shows "`TEL NO `" alternating with the digits stored, for example:

   `TEL NO 2`

   `9012334`

   If you wish to erase all the digits stored for that number press Ⓐ.

   The screen shows "`BLANK`" if the SD1+ does not have any digits stored for a number.

5. Key in the phone number of the pager, for example:

`08323456`

6. Key in B B B B C. The display shows an "M" at the end of the telephone number:

`8323456M`

☛ The pager treats anything you key in after the "M" as the message.

7. Key in the paging message (for example 333 for alarm):

`456M333`

☛ If you wish the message to start with a "*" key in B B C. If you wish the message to start with a "#" key in B B B C.

☛ SD1+ adds a single digit to the end of the message to indicate the trigger, for example "1"=trigger A.

☛ SD1+ always adds a "#" (hash) at the end of a pager message. You do not have to key one in yourself.

8. Press ENT. The display returns to "ENT 1-4".

`ENT 1-4`

If you now display the telephone number, you will see a star or hash following the "M", depending on what you selected in step 7.

PULSE DIAL OR TONE DIAL

Some telephone systems may still use pulse dialling. If you need to change from tone dialling to pulse dialling for any phone number, carry out the following steps.

1. Key in the current passcode.

`READY`

2. Press 1.

`ENT 1-4`

3. Press 1, 2, 3 or 4 to select the telephone number you wish to make pulse dialling, for example:

`TEL NO 2`

4. Press D. The display alternates between the words "TONE" and "DIALLING".

`TONE`

`DIALLING`

5. Press B. The display changes to show the words:

`PULSE`

`DIALLING`

(If you press B again the display changes to show the words AUTO, see the note below.

Press B again to go back to TONE DIALLING.)

6. Press ENT when the display shows the option you want.

`TEL NO 2`

The display shows the telephone number you selected in step 3.

7. Press ENT again. The display shows:

`ENT 1-4`

8. Press ENT once more. The display returns to:

`READY`

☛ Note: If you select AUTO, SD1+ will automatically select the correct dialling format itself.