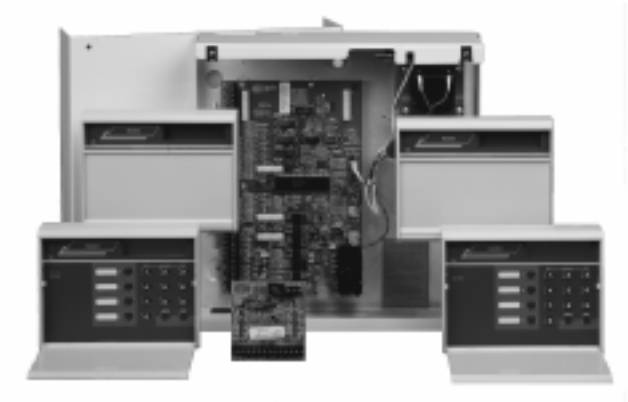
9600/9610
Installation and User Guide



COMPATIBLE EQUIPMENT

9624	Plug-on 4-Zone Expansion Card (max. 2)
9625	9600 Remote Keypad (max. 4)
9626	9610 Remote Keypad (max. 4)
9050	Flush mounting kit for keypads
9040	Internal loudspeaker
9056	Plug-on Digital Communicator
9076-01/02	Relay Interface
9066	Self-Contained Bell (SCB Module)
	Plug on Red Care S.T.U. (manufactured by others)
9685	Serial Printer
947	Serial Printer with standby battery
951	Serial lead for 947 printer

Introduction

The 9600 and 9610 control panels are designed for both domestic and medium sized comercial installations. The control units provide connections for eight zones on the main pcb, and can be expanded up to 16 zones by adding two 9624 plug-on expander cards. The control unit pcbs are fitted in blank steel cases, and connect to up to four remote keypads. Both systems can accept plug-on communicators, and provide four open collector outputs (bell and strobe plus two programmable). There is an additional programmable relay output on each 9624 expansion card (outputs 3 and 4).

The main differences between the 9600 and 9610 are:

9600	**9610**
Uses the 9625 keypad.	Uses the 9626 (backlit keys and status LED).
128 event log.	250 event log.
Fire zone and double knock.	Not included.
Not included.	Coded remote reset, entry stray abort.

Technical Specification

Operating temperature	-10° C to + 40° C.
Humidity	Up to 80% non-condensing.
Dimensions (main panel)	h x w x d 330 x 350 x 76mm.
Weight (Control Panel)	4.85 Kg (Excl. battery).
Stand-by Battery	12 Volt, 6AH rechargeable battery.

Power Supply

System output current	1250mA (Ambient Temp. 20° C).
System output current	800mA (Ambient Temp. 40° C max.).
Main Control Panel pcb	45mA quiescent.
Each Remote Keypad	45mA quiescent.
Standard 9066 SCB Module	50mA quiescent.
Plug-on 9056 Communicator	30mA quiescent.

Outputs

OP 1 and 2	500mA continuous, 1A surge.
OP 3 and 4	Relay contacts rated at 2A, 24V DC.

Keypad Wiring

Recommended maximum distances for the remote keypads from the control panel, using standard alarm cable is 100 metres for the star configuration, 300 m for the daisy chain configuration using four keypads.

Addressing Keypads

Before programming the Control unit, the engineer must program an identification number into the NVM chip on each remote keypad in the system. This is achieved as follows:

1. Set the PROG switch on each keypad to ON and the TEST switch to OFF.
2. Ensure that the bells and strobe are disconnected and that there is no auxiliary power connected to detectors.
3. Close the control panel lid, power up the control panel, mains supply first.

   The keypad display shows the software version numer of the keypad: V1:00 14/07/88
4. Note the software version number.
5. Press NO.

   The displays shows the current keypad address, for example: 1:01
6. Change the keypad address (if it is not correct already) by entering a 2-digit number between 01 and 04.

   The displays shows the new address, for example: 1:02

Note: If the system has more than one keypad on that address the system will malfunction

7. Press NO.

   The display shows the status of the keypad sounder, 0 for ON or 1 for OFF (normally left at 0), for example: 2:0
8. Change the status of the sounder by pressing 1 or 0.

   The display shows the selected status, for example: 2:1
9. Press NO.

   The displays shows the current status of the keypad back light, 0 for timed of 1 for always on, for example: 3:0
10. Change the backlight status as required by pressing 1 or 0.

    The display shows the selected status, for example: 3:1
11. Press NO.

    The display shows the current status of the keypad keys, 0 for keys Active, 1 for keys Non-Active (normally left at 0), for example: 4:0
12. Change the keypad status as required by pressing 1 or 0.

    The display shows the selected status, for example: 4:1

13. Repeat steps 4 to 12 for all the other keypads.
14. Set the PROG switch on each keypad to OFF and power down the control panel to lock the keypad+s program into the their NVMs.

Keypad Display Tests (Optional)

15. Set the TEST switch on each keypad to ON and carry out the following display tests for each keypad

a) Power up the control panel.

The display shows all 32 characters as solid black.

b) Press NO.

The display clears and shows a cursor (line) at the top left hand character.

c) Press all the number keys in turn, followed by No, Yes, A, B, C and D.

The display will show all number keys as the appropriate number, the No key as ‘A’. Yes key as ‘B’, the ‘A’ key as ‘C’, the ‘B’ key as ‘D’, the ‘C’ key as ‘E’ and the ‘D’ key as ‘F’, for example: 123456789ABCDEF

d) Repeat the keypad test for all system keypads.

16. Power down the control panel and set the TEST switches on all keypads to OFF.
17. Refit all keypads onto their backplates, ensuring that their tamper switches are closed.
18. Carry out the Initial Start Up procedure.

Wiring

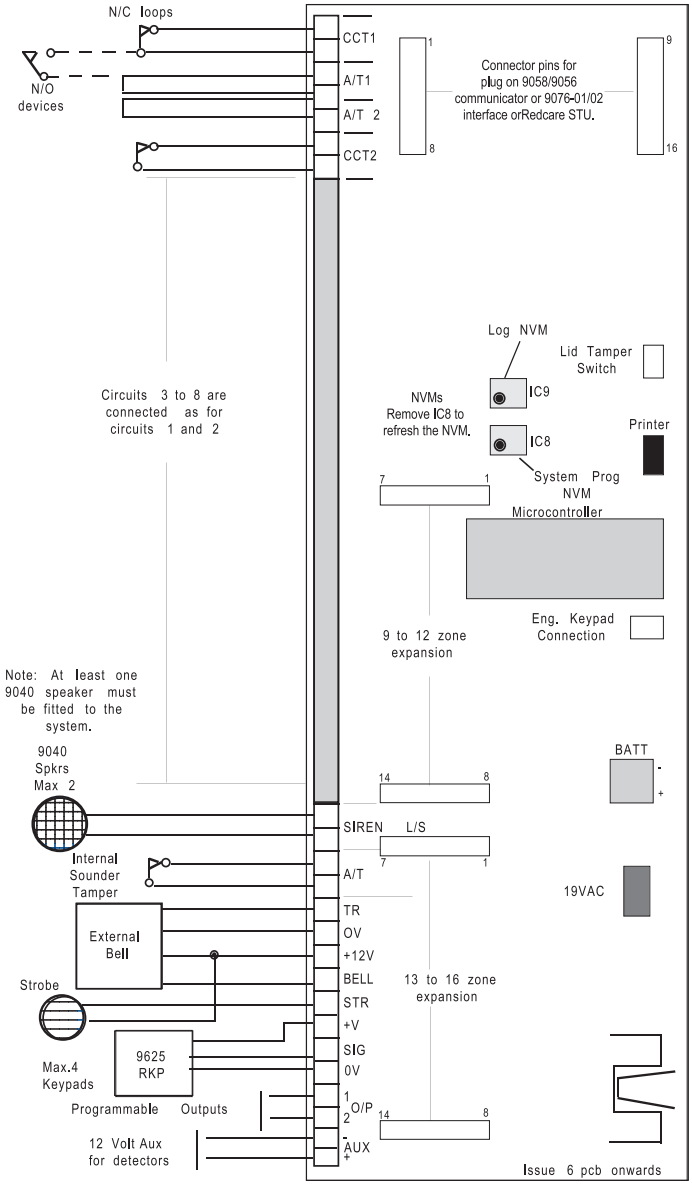


Figure 1. 9600 Control Panel Wiring

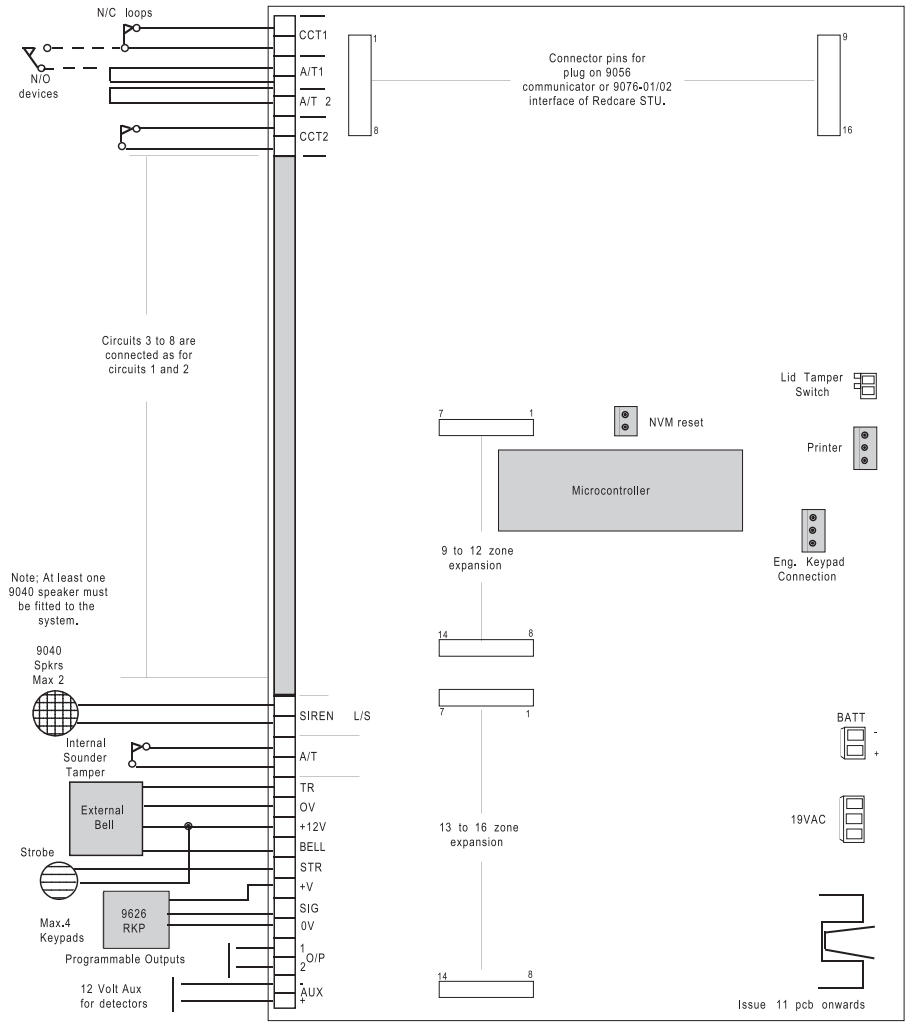


Figure 2. 9610 Control Panel Wiring

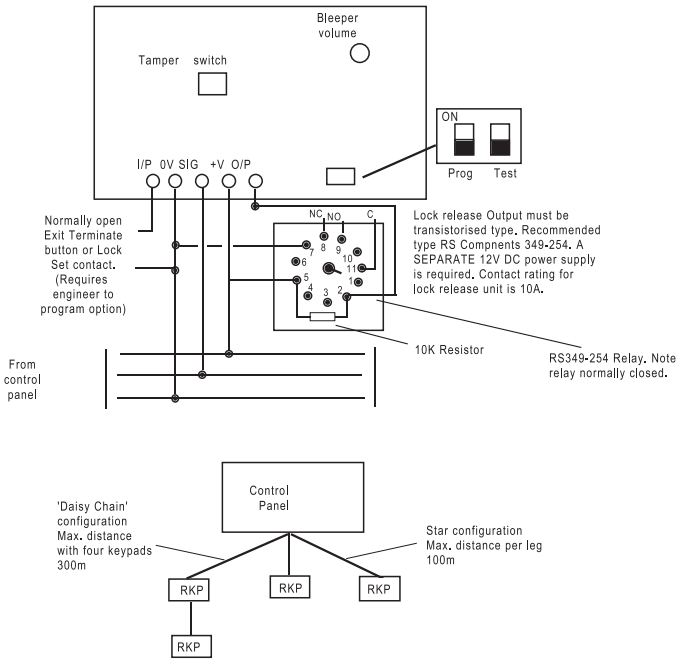


Figure 3. 9625 Keypad Wiring

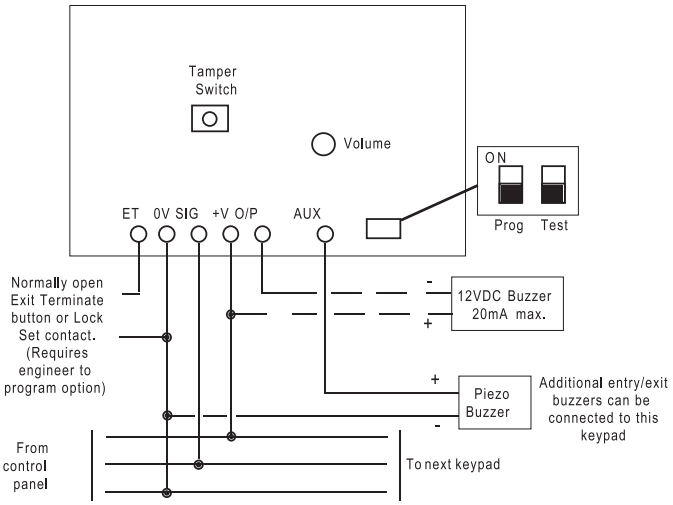


Figure 4. 9626 Keypad Wiring

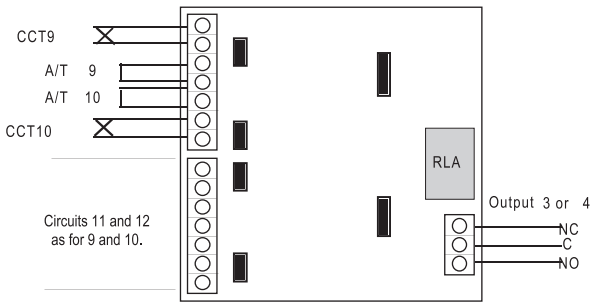


Figure 5. Four-Zone expansion Board Wiring

Programming

Initial Start Up

Having programmed all the keypads in the system, power up the control panel, battery first, then mains. Close the control panel lid and proceed as follows:

The keypad display shows: 00:00 MON 01 JAN

1. Key in 1234 (the default User Code).
   The display shows: SYSTEM UNSET
   followed by : 00:00 MON 01 JAN
   (the displays may vary depending on system status)
2. Key in 07890 (the default engineer code).
   The display shows: RESET SYSTEM? YES/NO
3. Press NO.
   The display shows: PROGRAM SYSTEM? YES/NO
4. Press Yes.

Note: If after pressing 'Yes' to 'PROGRAM SYSTEM' you want to cancel this option, press the 'No' key. This will also cancel the Keypad Sounder

The keypad sounder gives a continuous tone, and the display shows: OPEN END STATION

5. Open the control panel lid.
   If you are using an engineer keypad then plug it in at this point.
   Press Yes twice.
   The display shows: PROGRAM ZONES? YES/NO
6. Connect all auxiliary power connections for detectors and SAB.
7. Carry on to select one of the engineer functions (see "Engineer Program Commands").

Defaults

FUNCTION	DESCRIPTION AND DEFAULTS
User code authority	Master manager (user code 1)
User code 1	1234
User codes 2 to 7	Not programmed
Engineer code	0 7890
Zone used	Not used
Zone description	Zone 1 to 16
Group, zone	None
Group, enable	Not used
Chime	Disabled
24 hour monitoring	Disabled
Double Knock	Disabled (9600 only)
Omit Allowed	Disabled
Zone on test	Disabled
Exit mode	Timed
Exit time	10 seconds
Entry time	10 seconds
Alarm type	A=Full, B, C and D Local
Instant bells	Instant
O/P 1 Output type	Set Latch
O/P 2 Output type	Shock sensor reset
O/P 3 Output type	Entry/Exit follow (9610 = Bell Follow)
O/P 4 Output type	Bell follow
Bell type	SAB
Bell duration	20 minutes
Bell delay	None
Day tamper comms	Disabled
System full reset	Customer
PA reset (9600 only)	Customer
Remote CSID (9610 only)	Disabled
Abort facility	Disabled
Line fault	Audible
Remote reset	Disabled
Auto re-arm	Once (9610 Always)
Continuous sounder	Disabled
Delayed Entry Alarm	Disabled
Logging Printer	Disabled

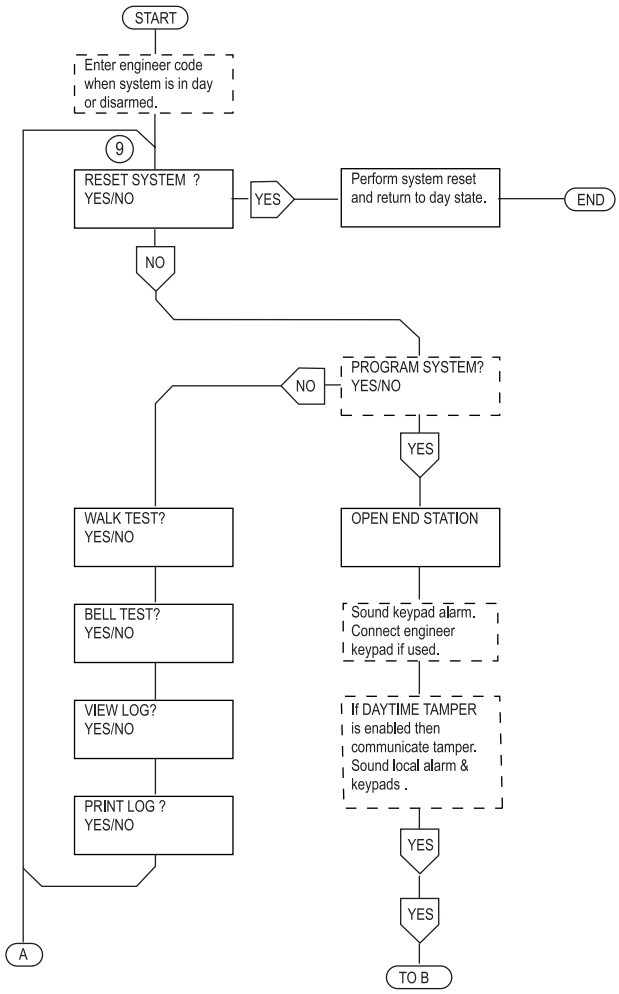
Engineer Program Commands

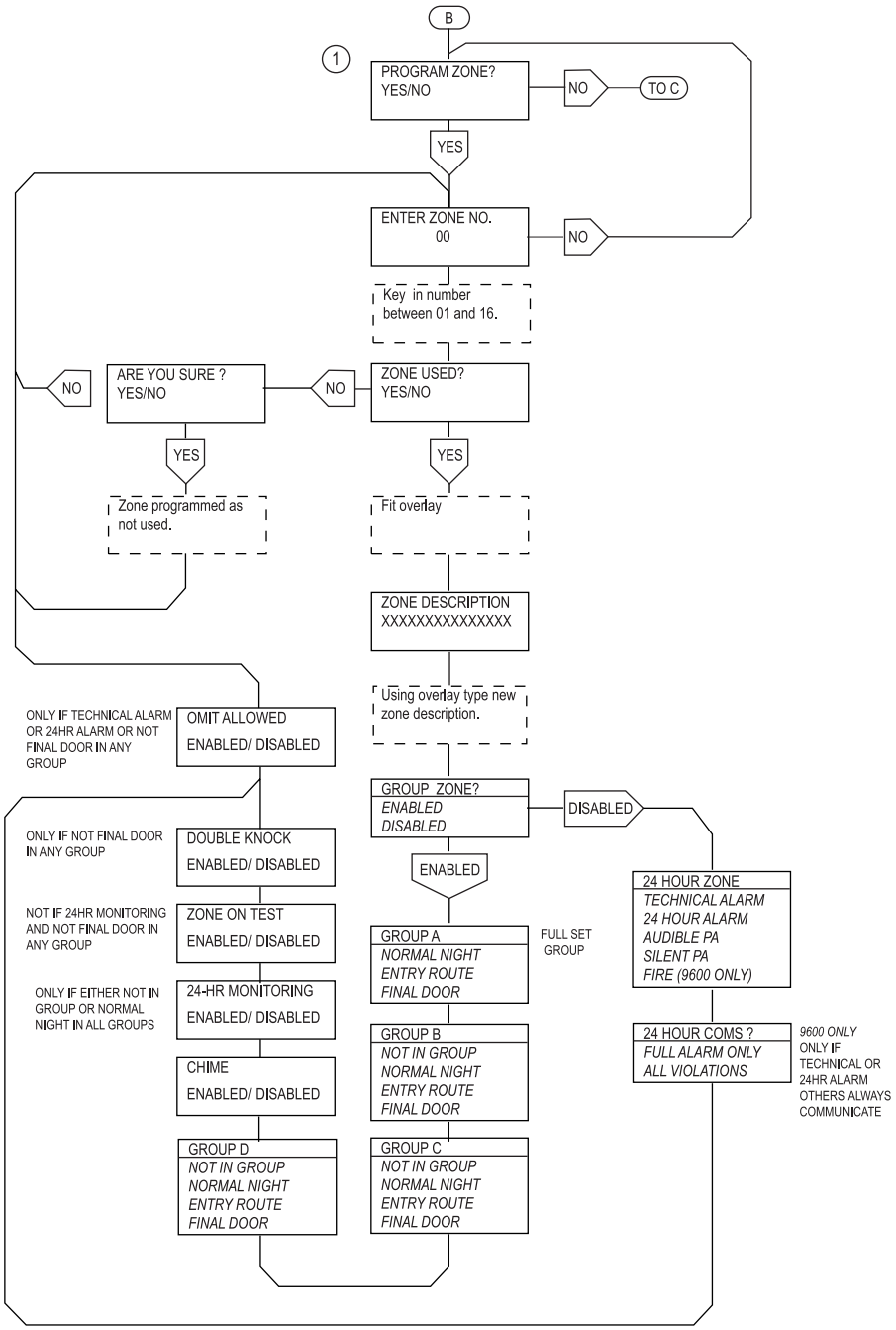
While programming the system, the control unit shows a series of questions on the keypad display. Answer the questions by pressing Yes or No on the keypad. When you respond to a question the control unit will display further questions in order to lead you through the programming sequence.

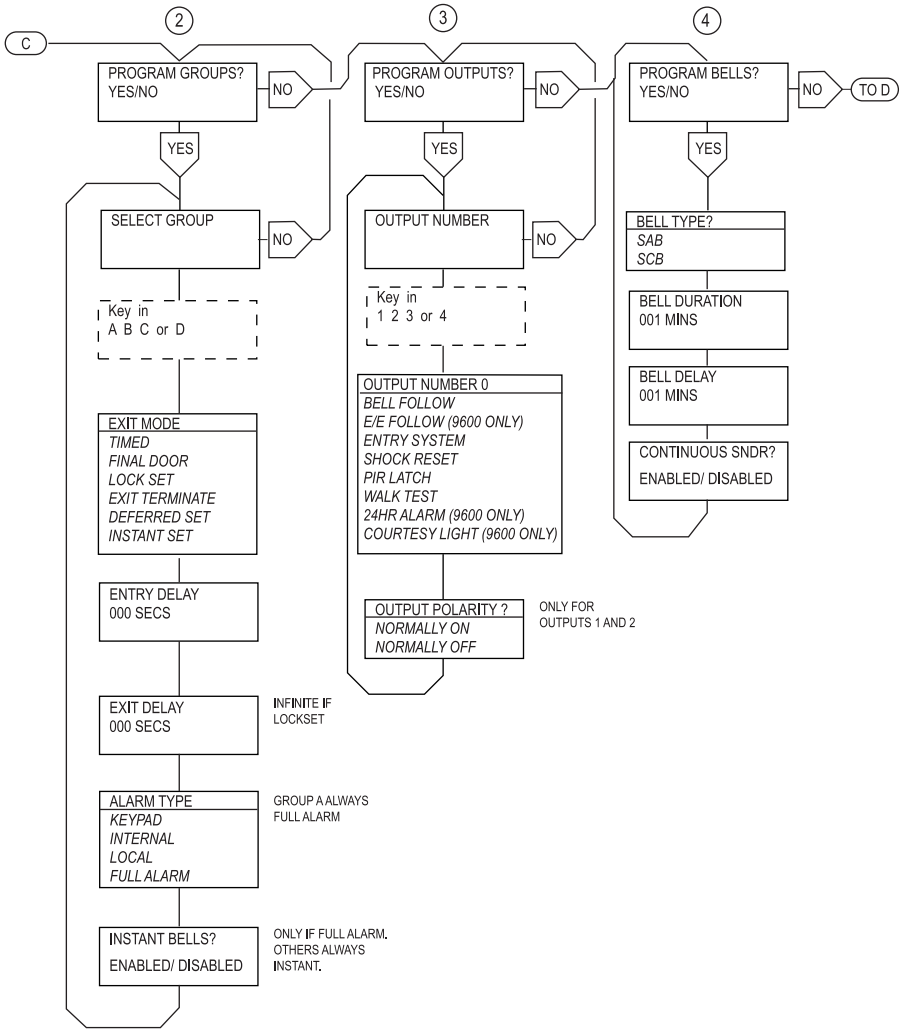
In the first stages of programming the system there are a set of numbered entry points that let you go directly to a specific area of programming. These numbers are shown in the following table:

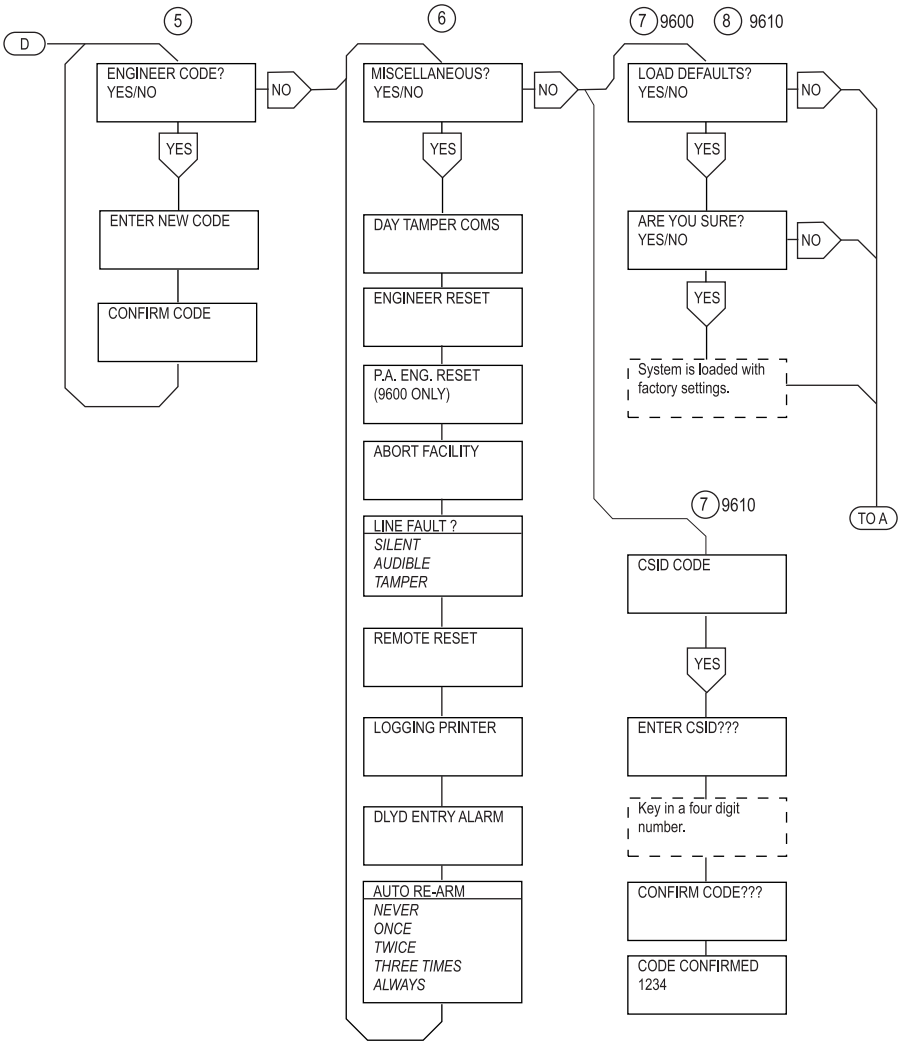
Command	Keypad display
1	Program zones?
2	Program Groups?
3	Program Outputs?
4	Program Bells?
5	Engineer Code?
6	Miscellaneous?
7	Load Defaults? (CSID Code? on 9610)
8	Load Defaults? (9610 only)
9	Reset System?
0	Walk Test?

The next four pages show the programming commands in more detail.


START
Enter engineer code when system is in day or disarmed.
9
RESET SYSTEM ? YES/NO
YES
Perform system reset and return to day state.
END
NO
PROGRAM SYSTEM? YES/NO
NO
YES
WALK TEST? YES/NO
OPEN END STATION
BELL TEST? YES/NO
Sound keypad alarm. Connect engineer keypad if used.
VIEW LOG? YES/NO
If DAYTIME TAMPER is enabled then communicate tamper. Sound local alarm & keypads .
PRINT LOG ? YES/NO
YES
YES
A
TO B

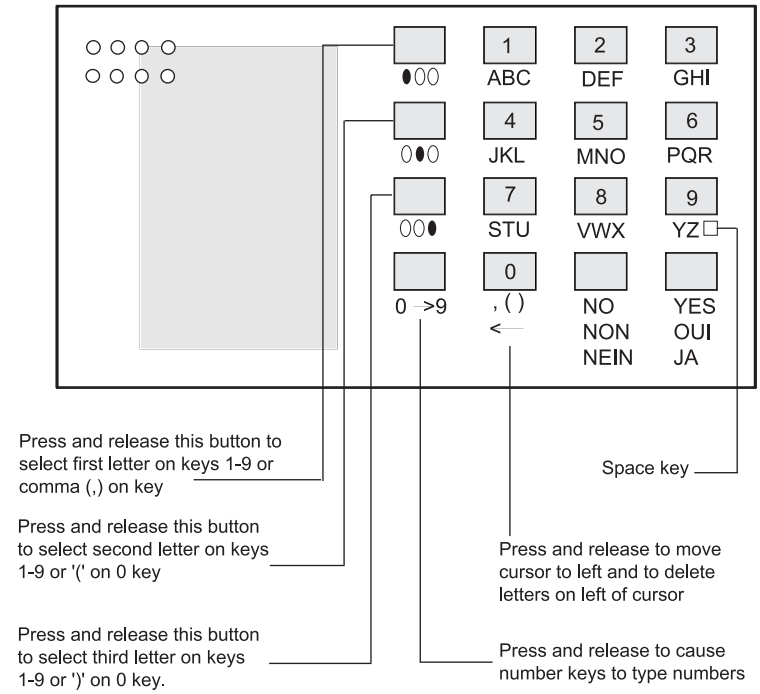

B
1
PROGRAM ZONE?
YES/NO
NO
TO C
YES
ENTER ZONE NO.
00
NO
Key in number
between 01 and 16.
ZONE USED?
YES/NO
NO
ARE YOU SURE ?
YES/NO
NO
YES
YES
Fit overlay
Zone programmed as
not used.
ZONE DESCRIPTION
XXXXXXXXXXXXXX
Using overlay type new
zone description.
GROUP ZONE?
ENABLED
DISABLED
DISABLED
ENABLED
24 HOUR ZONE
TECHNICAL ALARM
24 HOUR ALARM
AUDIBLE PA
SILENT PA
FIRE (9600 ONLY)
24 HOUR COMS ?
FULL ALARM ONLY
ALL VIOLATIONS
9600 ONLY
ONLY IF
TECHNICAL OR
24HR ALARM
OTHERS ALWAYS
COMMUNICATE
GROUP A
NORMAL NIGHT
ENTRY ROUTE
FINAL DOOR
FULL SET
GROUP
GROUP B
NOT IN GROUP
NORMAL NIGHT
ENTRY ROUTE
FINAL DOOR
GROUP C
NOT IN GROUP
NORMAL NIGHT
ENTRY ROUTE
FINAL DOOR
GROUP D
NOT IN GROUP
NORMAL NIGHT
ENTRY ROUTE
FINAL DOOR
ONLY IF TECHNICAL ALARM
OR 24HR ALARM OR NOT
FINAL DOOR IN ANY
GROUP
OMIT ALLOWED
ENABLED/ DISABLED
ONLY IF NOT FINAL DOOR
IN ANY GROUP
DOUBLE KNOCK
ENABLED/ DISABLED
NOT IF 24HR MONITORING
AND NOT FINAL DOOR IN
ANY GROUP
ZONE ON TEST
ENABLED/ DISABLED
ONLY IF EITHER NOT IN
GROUP OR NORMAL
NIGHT IN ALL GROUPS
24-HR MONITORING
ENABLED/ DISABLED
CHIME
ENABLED/ DISABLED


C
2
3
4
PROGRAM GROUPS? YES/NO
NO
YES
SELECT GROUP
NO
Key in A B C or D
EXIT MODE
TIMED
FINAL DOOR
LOCK SET
EXIT TERMINATE
DEFERRED SET
INSTANT SET
ENTRY DELAY 000 SECS
EXIT DELAY 000 SECS
INFINITE IF LOCKSET
ALARM TYPE
KEYPAD
INTERNAL
LOCAL
FULL ALARM
GROUP A ALWAYS FULL ALARM
INSTANT BELLS? ENABLED/ DISABLED
ONLY IF FULL ALARM. OTHERS ALWAYS INSTANT.
PROGRAM OUTPUTS? YES/NO
NO
YES
OUTPUT NUMBER
NO
Key in 1 2 3 or 4
OUTPUT NUMBER 0
BELL FOLLOW
E/E FOLLOW (9600 ONLY)
ENTRY SYSTEM
SHOCK RESET
PIR LATCH
WALK TEST
24HR ALARM (9600 ONLY)
COURTESY LIGHT (9600 ONLY)
OUTPUT POLARITY ?
NORMALLY ON
NORMALLY OFF
ONLY FOR OUTPUTS 1 AND 2
PROGRAM BELLS? YES/NO
NO
TO D
YES
BELL TYPE?
SAB
SCB
BELL DURATION 001 MINS
BELL DELAY 001 MINS
CONTINUOUS SNDR? ENABLED/ DISABLED



Entering Text

The 9629 Engineering Programming Template is designed for use when programming the ‘free-format’ zone descriptions. Fit the template over the keypad keys and proceed as follows:



Note: Press one of the four left hand keys before entering every letter, number or space. If you make a mistake you can correct the entry by pressing the <- key to delete characters . You can change existing descriptions to another descripton by pressing the 'No' key to delete and then re-entering new description.

Entering Engineer Mode from Day Mode

1. Key-in 0 then engineer code (for example: 7890)
   The display shows: RESET SYSTEM? YES/NO

See -Initial Start Up+.

Enginer Reset

1. Key-in 0 then engineer code (for example: 7890)
   The display shows: RESET SYSTEM? YES/NO

2. Press Yes.

REFRESHING THE NVM (9600)

If the user and/or engineer codes are lost, or you wish to revert to the standard factory default codes:

1. Remove all power - both mains and battery.
2. Remove the NVM chip IC8 (above the large microcontroller chip).
3. Power up the panel - battery first then mains.
4. Refit the NVM chip.
   The panel will now load the standard factory default codes.
5. Re-program the panel with all the installation settings.

Refreshing the NVM (9610)

1. Remove all power - both mains and battery.
2. Place a small screwdriver between the two pins marked CON1 located above the large microcontroller chip.
3. With the screwdriver shorting the pins, power the panel - battery first then mains.
   The panel will now load the standard factory default codes.
4. Re-program the panel with all the installation settings.

Error Messages

CANNOT RESET	System is unable to reset due to fault existing, check as necessary.
EXIT FAULT	User has exceeded the programmed exit time or a fault exists with the detection on exit route, check as necessary.
FIRE	(9600 only) A smoke or heat detector fitted to the system has been activated.
INVALID CODE	Incorrect user code has been entered, re-try up to 4 times before tamper alarm will occur.
MAINS FAILED	240V main supply to control panel lost, check fuse board or spur outlet.
PERSONAL ATTACK	A personal attack button fitted to the system has been activated.
PRINTER FAULT	The logging printer has been disconnected, de-selected or has ran out of paper.

SYSTEM FAULT	Fault within control panel.
SYSTEM RESET	System has successfully reset, all wiring and circuits are correct.
TAMPER FAULT	System anti-tamper switch opened or damage to wiring has occurred.
24 HOUR ALARM	A zone programmed as 24 hour alarm has been violated, display will show description. Check system as necessary.
AUX POWER FAIL	The load on the AUX 12V supply is excessive and the protecting polyswitch fuse has been operated.
BATTERY FAIL	The battery has become faulty and will not maintain the system in the event of a power failure.
COMMS FAILED	The system has tried to contact the central station but for some reason has failed.
COMMS LINE FAULT	Log message corresponding to the TELEPHONE FAILED message on the display.
COMMS SUCCESSFUL	The central station has successfully acknowledged receipt of a communication.
KEYPAD NN TAMPER	Either the wiring to keypad nn has been cut or the keypad tamper switch has been opened.
LOW BATTERY	The battery voltage is at a seriously low level. Mains power must be restored to the system in the near future otherwise the system will fail completely.
SYSTEM INHIBITED	If there are two or more keypads fitted to the system, all keypads except the one in use will display SYSTEM INHIBITED during engineering.
TELEPHONE FAILED	The telephone line has become disconnected or faulty. If possible check the connection to the panel.
UNIT TAMPER	Check the external sounder wiring. If an SAB is not fitted check that TR and 0V are linked. Also check loudspeaker tamper (A/T connections) are closed circuit .

WATCHDOG FAULT	A mains transient or severe electrostatic discharge has upset the system software. The system has restarted itself and should be functioning normally.
ZONE TEST FAILED	One or more zones are on 14 day test (soak test),. Some of these zones have been violated during the set period and would have caused an alarm. The panel will continue to operate correctly.
KEYPAD 00 TAMPER	Mains power-up has occurred. Power down control panel (mains and battery), then re-apply power (battery first, then mains) to clear this fault.

User Commands

The end users operate the 9600 and 9610 systems by pressing Yes or No on the keypads in response to a series of questions that the system presents in the display.

Access to the systems' functions is split into three authority levels : Manager, Operator, and Block Omit. The default access code "1234" has Manager authority. The system allows a total of seven codes, and any code can be assigned to any authority level.

User authority allows access to:

a) Arming, disarming and resetting the system (if not programmed for Engineer reset).

b) Omitting zones (if zones are Omit Allowed).

c) Setting Chime on or off.

d) Viewing the event log.

e) Carrying out all test functions.

Manager authority also allows access to the following additional functions:

f) Omitting and re-instating 24 hour zones (if zones are Omit Allowed).

g) Setting system time and date.

h) Changing user code authority.

i) Changing and deleting user codes.

j) Printing the log.

The Block Omit code has very limited authority. The code has no access to any functions defined for User or Manager. The code does allow a user (for example a cleaner) to arm or disarm any area defined as Group D, but only while one of the other three groups is armed.

Invalid access code entered

If you enter an invalid access code then the display shows:

INVALID ACCESS CODE? YES/NO

Press the ‘Yes’ or ‘No’ key and re-enter valid access code number.

Emphasise this point to customers when training them on the system.