9452/9453
Installation and User Guide

Compatible Equipment

9425	Remote Keypad
9040	Internal Sounder
660	Speech Communicator
8440	4-Channel 'Minicom'

Introduction

The 9452 and 9453 are fully programmable 4 zone control units designed to meet the requirements of both domestic and small commercial installations.

The basic 9452 system comprises a main control panel complete with built-in keypad, while the 9453 system comprises a blank end station and one remote keypad. The 9452 control unit and 9453 end station both house the system electronics, power supply, battery and remote signalling device (if fitted). A numeric keypad and row of indicators (LEDs) are provided only on the 9452 control unit, from which the user and installer perform the system operation.

Remote keypads provide the user with the facility to set and unset the system from strategic locations within the premises and allow the installer to programme the system. Up to TWO remote keypads may be connected to the 9452/3. A numeric keypad and row of indicators (LEDs) are also provided on the keypads to perform the system operation. The keypads also have an optional key press PA facility, if required.

Technical Specification

Zones	Four plus PA, Entry/Exit and global tamper.
Display	LED.
Keypads	One built-in (9452 only) plus up to two remote keypads (9425).
Expansion	None.
BS 4737	Full Spec.
Log	15 events.
Panel Siren	Yes.
Extension Spkr	9040, 2 max if Internal Speaker is disconnected.
Battery	1.9Ah.
12 Volt Power	Quiescent Panel 70mA. 9425 RKP = 40mA.
12 V Aux Output	350mA.
Dimensions	Panel: h x w x d 163 x 257 x 72mm. RKP: h x w x d 115 x 115 x 28mm.
Weight	Panel 1.2Kg.
Comms Output	PA, Intruder, Open/Close.
Input	Line fault.
Outputs	SAB/SCB, Strobe, Prog O/P (PIR set latch or SD reset).

Wiring

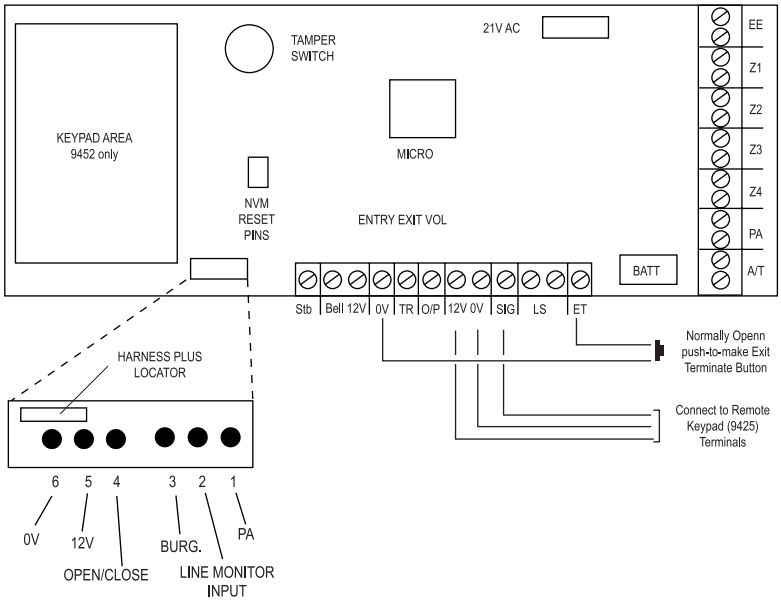


Figure 1. 9452/3 PCB Layout

Communicator Output Pins

Pin on panel	Function	Colour	Pin on communicator
Pin 1	PA	Red	ST2
Pin2	Line Monitor Input	Blue	O/P
Pin 3	Intruder	Yellow	ST3
Pin 4	Open/Close	Black	ST4
Pin 5	+12V	Brown	12V
Pin 6	0V	Orange	0V

Notes:

1. Pins 1, 3 and 4 are removal of positive in alarm to trigger.
2. Pin 2 is a 12V +ve input for Line Fault.
3. If a communicator is fitted and has an output for line fault, connecting a +ve to the Line Monitor Input will reduce any programmed bell delay to zero and give a visual indication on the panel LED (LF).
4. If a communicator is not fitted remove the communicator wiring harness from the main pcb.

Keypad Wiring

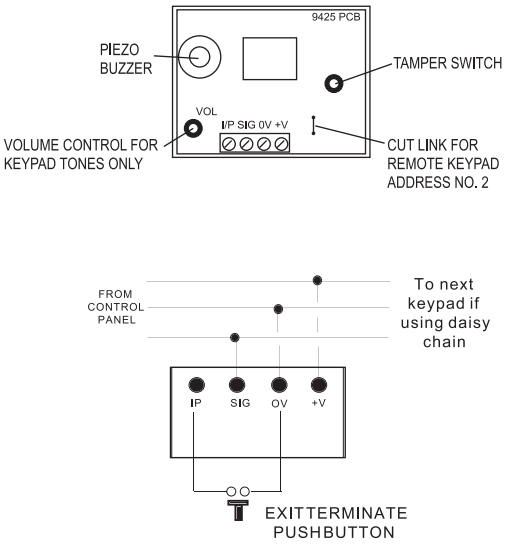


Figure 2. Keypad Connection.

Notes:

1. Maximum cable distance: Daisy chain = 300m, Star Wire = 100m per leg.

2. Do not wire the extension speaker or circuit wiring within the same cable as the remote keypad.

Programming

Initial Start Up

Before applying power to the control panel or end station, ensure that all used circuits are connected. The control panel or end station lid switch should be defeated or closed and NO power connections to detectors, sounders or battery should be made at this stage.

Note: If connections to the bell and AUX power are made when the system is powered up, damage to the main pcb may occur.

1. Apply mains to the control panel or end station. The green “Power” and “Day” LED will illuminate and the internal sounder will sound.
2. Key-in the factory default customer code “1234”. The internal sounder will stop and the “Tamper”, “Service” and “Fault” LEDs will be flashing.

3. Key-in the factory default engineer code, “0” followed by “ENTER” then “7890”. The “Fault” and ”Service” LEDs will flash and the internal sounder will be bleeping.
4. Open the control panel or end station lid. The internal sounder stops bleeping and the “Service” LED will be steady. Make connections to AUX power, stand-by battery and connections to SAB. Proceed to program the system.

Note: If an SAB/SCB module is fitted within the bell, it will continue to ring until the panel supply is connected and until the bell cover lid tamper switch is closed.

Programming Commands

To change the factory default program, use the commands listed in this section as follows:

1. Enter the command number.
2. Enter one or more digits to give the new program.
3. Press ENTER.

   The panel will give a double bleep to show that it has accepted the command. If you enter the command incorrectly the panel gives a single tone.

Default Settings

When delivered from the factory, the panel is programmed as follows:

Zone 1, Entry Route Part Set zone.	01 36
Zone 2, Normal alarm, active in Part Set, Omit allowed.	02 16 OMIT
Zone 3, Normal Alarm, active in Part Set, Omit allowed.	03 16 OMIT
Zone 4, Normal Alarm, active in Part Set, Omit allowed.	04 16 OMIT
Zone 7(E/E) part set.	07 6
User code	1234

Engineering Program Commands

To change	Key in:	Followed by + ENTER
Zones 1-4	01-04	0 = Not used 1 = Normal Alarm 2 = 24 Hour Alarm 3 = Entry Route 4 = Double Knock 5 = Chime 6 = Part set zone OMIT = Omit Allowed

To change	Key in:	Followed by + ENTER	Default
Entry/exit zone options	**07**	0 = Reset to none	
		5 = Chime	
		6 = Part set zone	
Programmable Output	**11**	18 = PIR set latch	✓
		29 = Shock sensor reset	
Engineer Access	**20**	Any 4 digit code	7890
Bell output type	**21**	0 = SAB	✓
		1 = SCB	
Internal sounder	**22**	1 = Follows strobe	✓
		0 = Follows bell	
PA	**30**	0 = Audible Alarm	✓
		1 = Silent Alarm	
System Reset	**31**	0 = Customer Reset	✓
		1 = Engineer Reset	
Abort facility	**32**	0 = Disabled	✓
		1 = Enabled	
Keypad PA	**33**	0 = Disabled	✓
		1 = Enabled	
System status	**34**	0 = LEDs ON when set and part set	
		1 = LEDs OFF when set and part set.	✓
Exit Mode	**35**	0 = Timed or Terminated	✓
		1 = Final Door Set	
Rearm	**40**	0 = Never	✓
		1 = Once	
		2 = Twice	
		3 = Three times	
		4 = Always	
External sounder delay	**41**	0 = Nil	✓
		1 = 1.5 mins	
		2 = 3 mins	
		3 = 5 mins	
		4 = 10 mins	
		5 = 15 mins	
		6 = 20 mins	
		7 = No duration	
Ext. sounder duration	**42**	0 = Nil	
		1 = 1.5 mins	
		2 = 3 mins	✓
		3 = 5 mins	
		4 = 10 mins	
		5 = 15 mins	
		6 = 20 mins	
		7 = No duration	

To change	Key in:	Followed by + ENTER	Default
Entry Time	**43**	0 = Continuous	
		1 = 10s	
		2 = 20s	✓
		3 = 30s	
		4 = 60s	
		5 = 90s	
		6 = 120s	
Exit Time	**44**	0 = Continuous	
		1 = 10s	✓
		2 = 20s	
		3 = 30s	
		4 = 60s	
		5 = 90s	
		6 = 120s	
CSID code	**50**	nnnn (key in four digit code)	
Part Set Entry/Exit	**60**	0 = As Final Exit	✓
		1 = Normal Alarm	
Part Set Entry Response	**61**	0 = As Entry Route	
		1 = Start Entry Timer	✓
Part Set Exit Mode	**62**	0 = As Full Set	
		1 = 10 Second Set	✓
		2 = Instant Set	
Part Set Alarm Response	**63**	0 = Local (No comms)	✓
		1 = Full Alarm	
Engineer Log	**90**	1 see earlier events.	
		3 to see more recent events.	
		ENTER to quit log. (15 events max.)	
External Sounder	**91**	ENTER to stop test.	
Strobe	**92**	ENTER to stop test.	
Internal Sounder	**93**	ENTER to stop test.	
Test keypad LEDs	**94**	ENTER to stop test	
Output 1	**95**	ENTER to stop test.	
Walk Test	**97**	ENTER to stop test.	
Load Factory Defaults	**98**		
Leave Engineering Mode	**99**		

Refresh NVM (System Memory Chip)

The 9452/3 control panels have a Non Volatile Memory chip which retains all programmed information and access codes. If the system suffers a total power failure, the NVM will retain all information and the panel will only require powering up and resetting. However, if the end user forgets the user access code or the installer wants to return the panel to the factory programmed settings, continue as follows:

1. Power down the control panel, mains and battery.
2. Find the RST pins, located to the middle of the control pcb.
3. Place a small screwdriver blade to short between the “RST” pins. With the blade still across the pins, power up the control panel battery first, then Mains.
   All the LEDs will flash.
4. Remove the screwdriver blade.
   The control panel loads the factory default codes.
5. Key-in 1234, then press 0 Enter 7890. Momentarily close, then open up control panel lid. Re-program the system.

Engineer Reset

An engineer can reset the system without opening the control panel or end station lid.

1. Press 0 then Enter.
2. Key in the Engineer Access Code.
3. Key in 99.

To Re-Enter Programming Mode

1. Press 0 then Enter.
2. Key in the Engineer Access Code.
   The “Fault” and “Service” LEDs flash and the internal sounder starts bleeping.
3. Open the control panel or end station lid.
   The internal sounder stops bleeping and the Service LED glows steadily. **The system is now in programming mode.**

To Leave Programming Mode

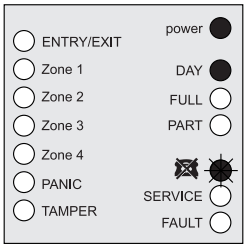
1. Close the panel or end station lid.
2. Key in 99.

Fault Finding

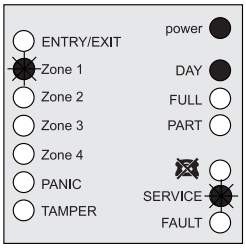
Under normal conditions, the “Fault”, “Service” and “Alarm” LEDs will not be illuminated. Only the “Mains”, “Day” “Full” and “Part Set” LEDs should be illuminated during normal use of the system. Any other LEDs which are illuminated or flashing, signify a fault or alarm condition.

Note: The “Mains” LED will be illuminated permanently.

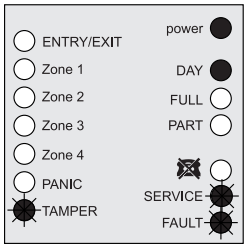
Any condition indicated by a combination of the “Fault”, “Service” or “Alarm” LEDs are to be considered an abnormal condition, as shown on the opposite page:



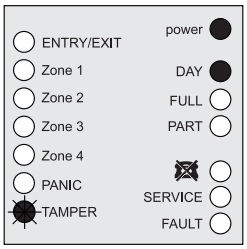
Telephone line fault.



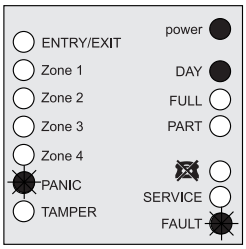
Alarm activated on Zone 1. System requires Engineer reset.



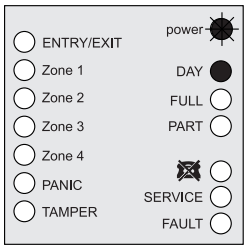
Tamper fault. Battery not charged or missing, remote keypad missing, back tamper normal circuit tamper or bell tamper faults. If there is no SAB fitted, link 0V to TR.



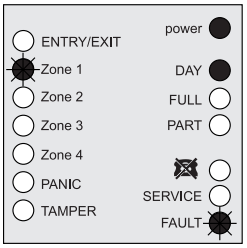
Tamper fault has occurred. Enter user code twice to clear.



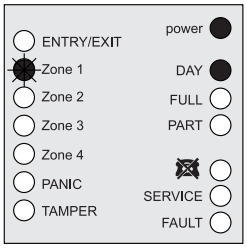
Panic alarm has occured. Reset the panic button. Check the fault LED is extinguished, then enter the user code twice to clear the system.



Mains failure.
The power light flashes.



Zone 1 programmed as 24 hours has activated. Enter the user code to stop the sounder(s). Close the 24 hour door or circuit Check the fault light has extinguished, then enter the user code to clear the system.



Either an exit fault or alarm activation has occurred in zone 1. Enter the user code twice to clear the system.

User Commands

Full Set System	1 + ENTER + User code
Part Set System	2 + ENTER + User code
Unset/Reset System	User code
Omit zone	1 (or 2) + ENTER + User code + OMIT + zone number (repeat OMIT + zone number for other zones as required).
Omit 24 hr zone	OMIT + ENTER + User code + zone number (+ zone number for other zones as required)
Change User code	4 + ENTER + Old code + Old code (the system beeps twice)+ New code (the system beeps twice)
Read Log	5 + ENTER + User code 1 to read earlier events 3 to read later events ENTER to leave the log
Chime On/Off	7 + ENTER + User code
Bell Test	8 + ENTER + User code
Walk Test	9 + ENTER + User code ENTER to end the test