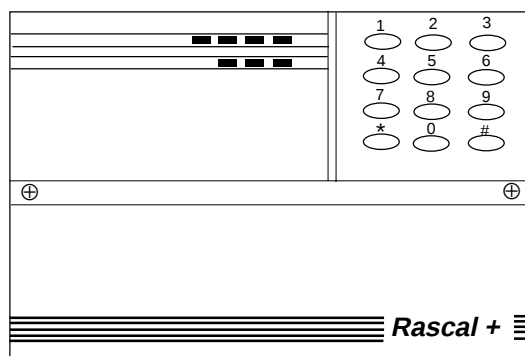




Rascal + Installation Instructions

RASCAL + INSTALLATION INSTRUCTIONS

Introduction

The Rascal+ is a keypad operated microprocessor alarm control unit. It has a host of enhanced features not normally found on a control panel of this size. It is provided with a dedicated final Entry/Exit, Intermediate entry circuit, and two alarm zones. A common 24hr. circuit and a separate Personal Attack circuit are also provided.

Mechanical

It is housed in an attractive, durable 3mm thick polycarbonate box. To gain access to the printed circuit board, remove the lid fixing screws. Cable entry points and routing channels are provided on each side of the box.

Fixing

A top keyhole fixing is provided. Fix top securing screw, hook onto the top keyhole and mark the position of the other holes. Remove the unit. Drill and plug the remaining fixings then secure to the wall.

Mains Wiring

CAUTION..... THE ELECTRICAL INSTALLATION SHOULD COMPLY WITH THE LATEST I.E.E. WIRING REGULATIONS. IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN.

The supply should be taken from an unswitched fused spur outlet. A three-way mains terminal block is fitted below the printed circuit board.

Other Wiring

All other wiring should use British Standard security cable to the other terminals as listed in the connection chart. The routing of these cables should be kept away from sources of possible interference. i.e. fluorescent lights, central heating thermostats and fuse boxes etc.

First Powering Up

When power is first applied the alarm will come on in a tamper condition. Enter the factory default code (1-2-3-4) to stop the sounder then press the # to reset to normal.

Display Interpretation

The first zone to alarm will indicate with a continually lit LED. Any secondary or subsequent alarm zones will be indicated by a fast flashing LED. Any isolated zones will be indicated by a slow flashing LED.

Operation Notes

There are three 'set' positions. Full set arms all zones. Two part sets are provided both isolate Zone 2 and make the IX circuit into a second delayed entry circuit. Part set (* and 0) allows the external bell to ring. Home set (* and 4) disables the external bell and strobe.

1. Full Set

Enter the user code (default 1-2-3-4). The sounder will emit a steady tone and the exit timer will start. Leave the protected area by the appropriate route.

2. Part Set

Enter the user code then press the * and 0 keys. The sounder will emit a steady low tone and the exit timer will start. Zone 2 will be isolated and it's LED will pulse. The IX circuit will become a second delayed entry circuit. Leave the protected area by the appropriate route. With part set the external bell will sound in the event of an alarm.

3. Home Set

Enter the user code then press the * and 4 keys. The sounder will emit a steady low tone and the exit timer will start. Zone 2 will be isolated and it's LED will pulse. The IX circuit will become a second delayed entry circuit. Leave the protected area by the appropriate route. With home set the external bell and strobe are disabled.

4. Setting with Individual Circuits isolated.

Enter the user code. The sounder will emit a steady tone. Press the * key and the number key for the zone to be isolated. The LED for that zone will pulse. The IX zone (intermediate entry) is isolated by key number 3.

If more than one zone is to be isolated then each zone number must be preceeded by the * key i.e to isolate zones 1 and 2 enter code followed by *1 then *2.

5. Any Exit Faults

This will cause the exit timer to halt and the sounder to pulse. The circuit LED will light. When the fault is cleared the LED will go out and the exit timer will restart. The alarm may not be 'set' with a fault present. The minimum exit time following an exit fault will be 5 seconds.

6. 24hr Tamper

When the panel is set a tamper alarm will activate the internal and external sounders and the strobe. When the panel is not set (during the day) a tamper alarm will activate the internal sounder only. In both cases the tamper LED on the control panel will be lit when unset. Reset the panel and clear the fault.

7. Personal Attack

In alarm both the internal and external sounders, and strobe will operate. The PA LED on the control panel will be lit. Reset the alarm and reset the PA button.

8. Stopping the Bells

Following an alarm enter the user code to stop the bells or sounders.

9. Entry

Upon entry if all is clear the sounder will emit a steady tone. In the event of there having been an alarm condition which has auto reset the sounder will pulse. In the last remaining 15 seconds of the entry time the sounder will emit a rapid pipping 'entry hurry' up tone, go directly to the alarm and enter the user code.

10. Resetting

To reset following any alarm condition, enter the user code. The sounder will emit a 'bip-bop' reset required sound. Press the # key to reset. If either the tamper or PA circuits are in fault the LED's for those zones will flash. Reset the PA push or clear the tamper fault.

11. Bell Test

<u>Key In</u>	<u>Key Numbers</u>	<u>Conditions</u>
User Code	*9	All the LEDs will light

There will be a 10 second pause then :-
The internal sounder will operate for 5 seconds.
The external bell will operate for 5 seconds.
The strobe (where fitted) will operate for 5 seconds.
The control will then automatically revert back to day mode.

12. Security Code Programming

The control unit has a 4 digit security code that is programmable only by first entering the original code.

<u>Key In</u>	<u>Key Numbers</u>	<u>Enter</u>
User code	*91	New user code

Note : The factory default code is (1-2-3-4)

13. Reading Logs

The Rascal+ includes a logging mode which allows a recall of the last two set and unset events.

<u>Key In</u>	<u>Key Numbers</u>	<u>Conditions</u>
User code	*93	A steady tone and the display indicating the last set state.

TO VIEW ANY DAY'S LOG

<u>Key</u>	<u>View</u>	<u>Key</u>	<u>View</u>
1	Log 1 'SET'	#	Log 1 'UNSET'
2	Log 2 'SET'	#	Log 2 'UNSET'

The log is organised as 'SET' and 'UNSET' events. All events are recorded. The first to alarm is shown by the relevant LED being lit continuously. Subsequent alarms as shown by a fast pulse of the relevant LED. Any zones isolated are shown by a slow pulse on the relevant LED.

When this option is first entered the display will be showing log 1 'SET' state. To display the 'UNSET' (Day) conditions press the # key. The buzzer will sound whilst viewing the 'SET' logs. Any key press error will cause a return to viewing Log 1 'SET'.

To revert back to day mode press the * key.

14. Walk Test

<u>Key In</u>	<u>Key Numbers</u>	<u>Conditions</u>
User code	*94	A steady tone

The zone alarm devices may now be operated. The display will show the zones operated and a high level sounder will follow the status of the zone under test.

To revert back to day mode press the * key.

Note : PA or tamper circuits may not be walk tested. An alarm condition will be generated upon operation.

15. Chime Control

The chime is a tone associated with the entry/exit zone (FX) and can be used to alert the user to any intrusion during the unset times. The chime can be turned on and off while the alarm is not set as follows :

To enable, press * followed by the 4 key. The FX LED will light. Press the * key to revert back to day mode. To disable, press * followed by the 4 key. The FX LED will go out. Press the * key to revert to day mode.

To check the Chime simply press the * key. If the FX LED lights the chime function is on. If the LED is off then the chime function is off. Always press the * key to revert to day mode when finished. If the * key is not pressed after 15 seconds have expired, the control panel will revert to day mode automatically.

CONTROL OUTPUTS

1. ID - Output

This is a supply negative (0V) feed for Viper detectors, shatterbox and smoke detectors which require a temporary removal of power to clear their alarm memories. The terminal pulses off when the alarm is turned to 'Set' (1/2 second pulse) or at 'Reset' (3 second pulse). Current limit 50 mA.

2. L+ Latch Line (Set/Unset)

This output is for controlling latching PIR detectors. The line goes to 12V when 'set' and returns to 0V when unsetting occurs.

3. 12V Auxiliary

This is the supply for PIR or other powered detectors. The maximum permissible load is 150 mA

4. Battery Fuse

The battery fuse is a 20mm 1 Amp anti surge type.

Connections

Terminal Group 1.

No	Name	Description
1 & 2	24 Tamper	Common tamper loop
3 & 4	PA	Personal attack circuit
5 & 6	1	Alarm Zone 1
7 & 8	2	Alarm Zone 2
9 & 10	IX	Intermediate entry circuit
11 & 12	FX	Entry/Exit circuit

Alarm connections

Terminal Group 2

No	Name	Description
13	EXT+	Extension speaker connections
14	SPK-	Fit a maximum of 2 extra 16 Ohm speakers
15	ID-	Switched negative voltage feed
16	L+	Set line for latching detector (each to alarm)
17	ST-	Strobe switched negative. Fit a maximum of two low current strobes.
18	S-	Bell signal negative
19	H-	Self actuating siren hold of negative. This terminal goes open circuit in alarm. Bell relay contacts rated at 1A max.
20	+	Bell hold off positive supply
21	C	Remote keypad clock signal
22	D	Remote keypad data signal
23	AUX +	Auxiliary nominal 12V positive
24	AUX -	Auxiliary nominal 12V negative. Maximum current load 150 mA.

Power and Control

OPTIONS

1. Quick Set

Cut link A for quick set in part guard. The exit time will be 5 seconds.

2. Buzzer Volume

Cut link B to reduce the buzzer (low level sounder) volume.

Sounders and Strobe

Bell cut off is permanently selected. The internal sounder and strobe operation are modified when the bell ring time is set to 10 mins or less.

Note : Fit a maximum of two low current strobes.
Fit a maximum of two 16 Ohm extension speakers (in parallel).

Bell Time Set 10 Mins or Less

If a zone is in fault for 10 mins, that zone will be isolated permanently.

If a zone is in alarm for shorter than the bell time the internal sounder and strobe will cut off with the bells at the end of the preset bell time. If a zone is in alarm for longer than the bell time the bell will stop at the end of the bell time and the internal sounder will stop when the zone resets or at 10 mins if the zone remains in fault.

Bell Time Set 11 Mins or Longer

If a zone is in alarm for less than 10 mins when the bell timer has finished the bell and the internal sounder will stop. The strobe will continue until the control panel is switched off.

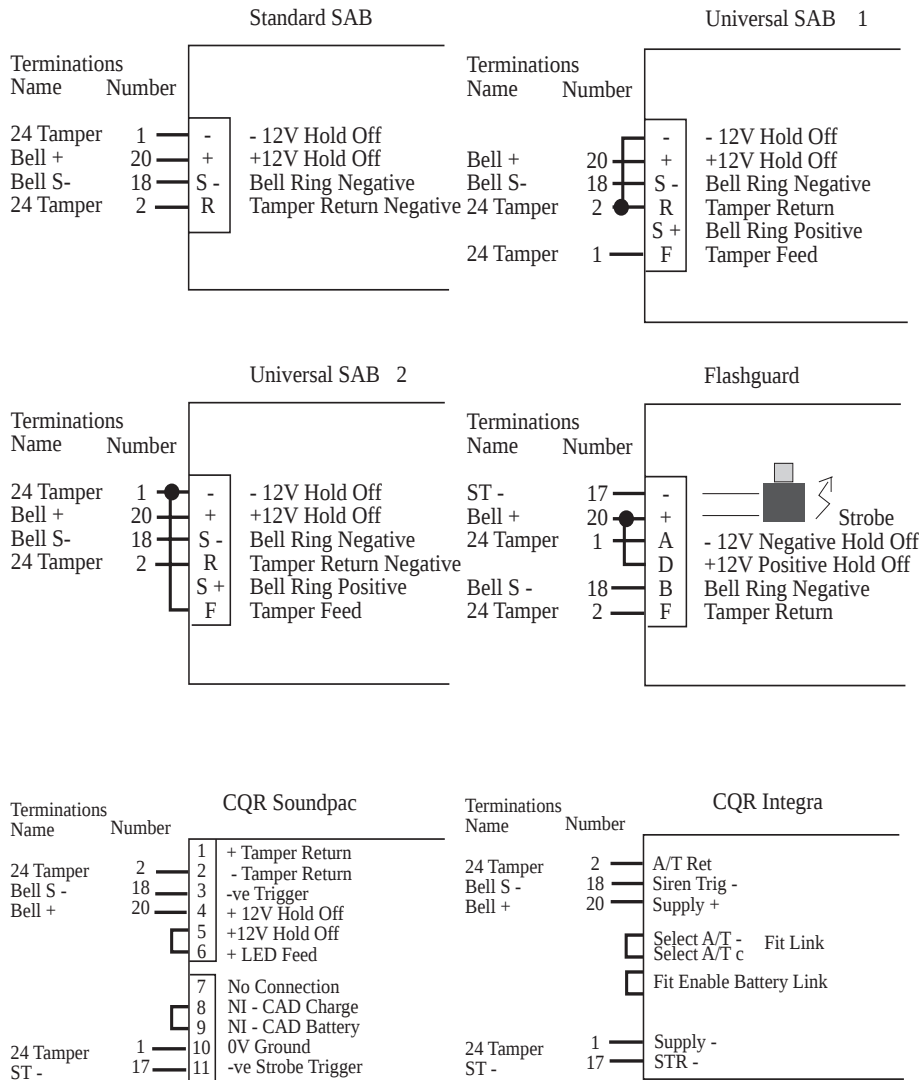
Timing Controls

EXIT TIME	10 secs to 120 secs approximately
ENTRY TIME	10 secs to 120 secs approximately
BELL RING TIME	1 min to 40 mins approximately

With all controls to increase the time, turn clockwise

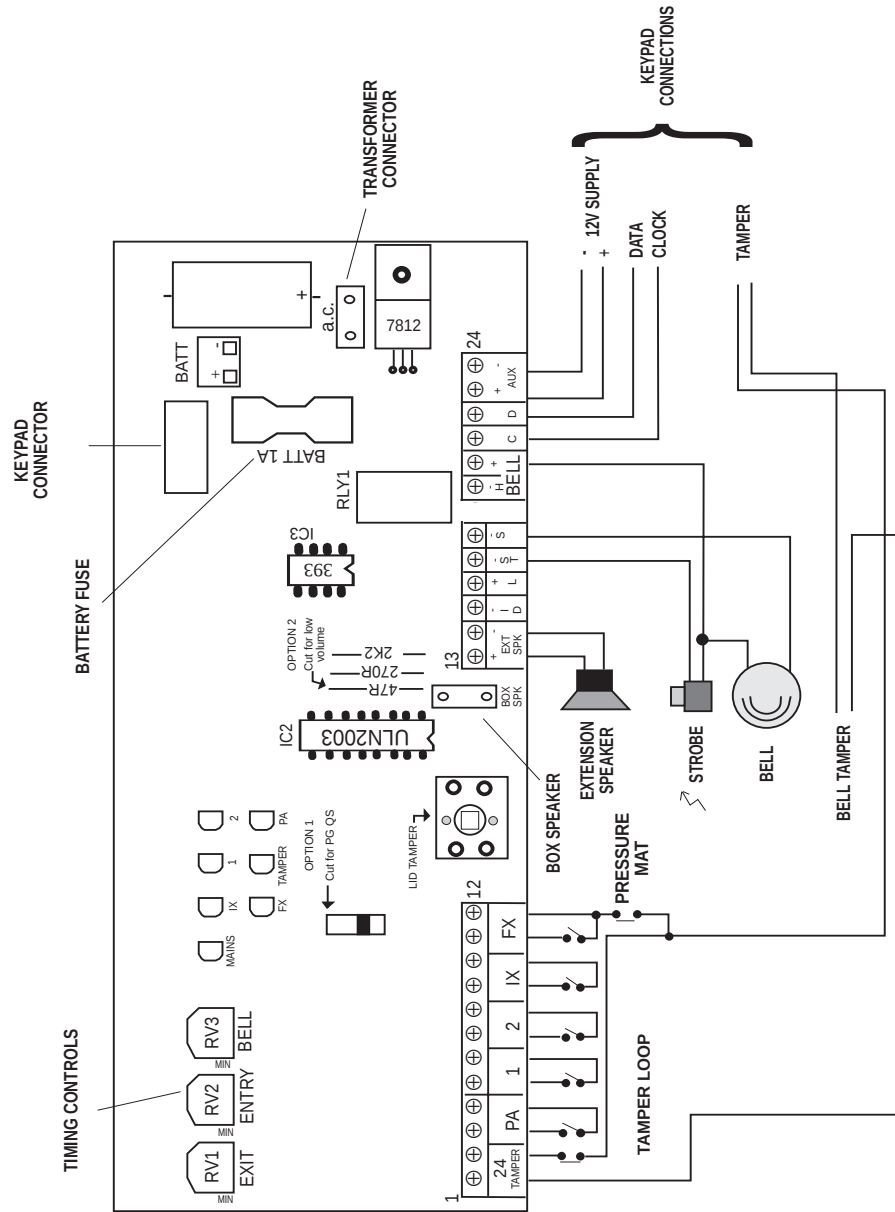
Timing Adjustments

Exit, entry and bell controls are scanned at 5 min. intervals. When altering the times make the adjustment and enter the user code. Wait 5 seconds then press the # key. At this point wait a further 20 seconds for the controls to be scanned. The new settings will then be effective.



Notes:

1. When connecting an SAB unit the lid tamper will cause the bell to ring from the SAB battery.
2. Terminal 1 should always be used as the start of the tamper loop or the negative hold off feed for SAB unit.
3. The tamper return from the Sab unit should be wired in series with all other tamper connections and connected into terminal 2.



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