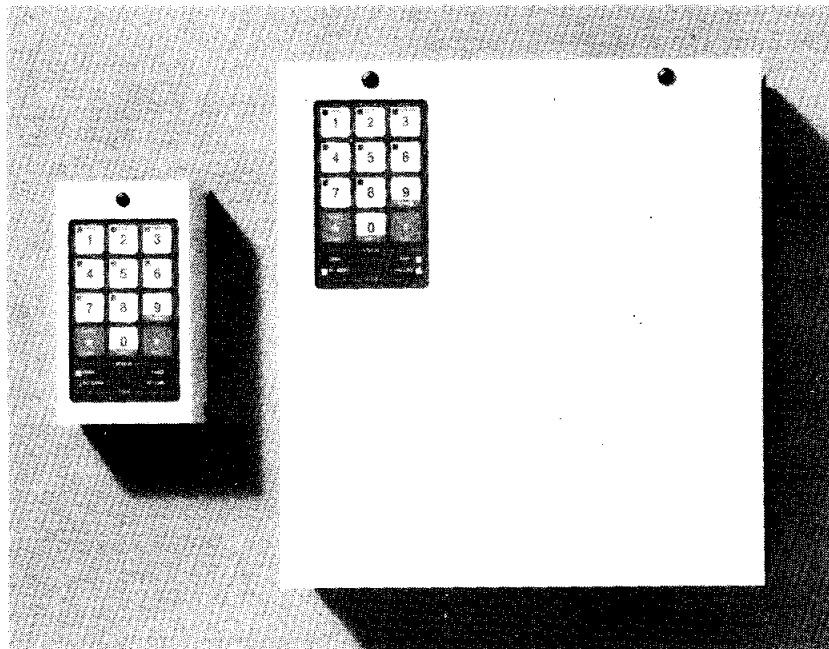




## RS50/F ENGINEERS MANUAL



The **REGALSAFE RS50/F** is a microprocessor based control panel, it has a Final Exit Zone, an Exit Route, individual Tamper Zone, and three programmable zones. These can be programmed to any of the circuit types described in Section 2.

The panel has an on board keypad and up to five remote setting points may be connected.

The panel can be set and unset by the Customer Access Code (four digits in any permutation) in an **EMERGENCY** the panel can be unset by using the Duress Code (four digits in any permutation) this can be programmed to send a silent signal via remote signalling equipment.

The above codes can be changed by using the Boss Code (four digits in any permutation).

Programming can only be carried out by using the Engineer Code.

The Engineer Code can only be changed by the Engineer.

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SECTION 1 THE REGALSAFE RS50/F PC BOARD & FACIA LAYOUT

L.E.D. FUNCTION PERMANENTLY ON FLASHING	
Final Exit Alarm or Fault.	Final Exit Omitted.
Exit Route Alarm or Fault.	Exit Route Omitted.
Tamper -ve Alarm or Fault.	Tamper Activation.
Zone Alarm or Fault.	Zone Omitted.
No L.E.D. fitted.	No L.E.D. fitted.
System not set.	Awaiting Command.
Lockout pending Engineer Reset. OR Tamper Fault OR Engineer Mode.	Lockout pending User Reset. OR Unable to set. OR System Fault.
No Telephone Line.	Night Set.
No Mains Supply.	Power Low.

FINAL  
1

EXIT  
2

TAMPER  
3

4

5

6

7

8

9

CHIME

RESET  
\*  
PART

0  
OMIT

#  
FULL

STATUS

OPEN ☐

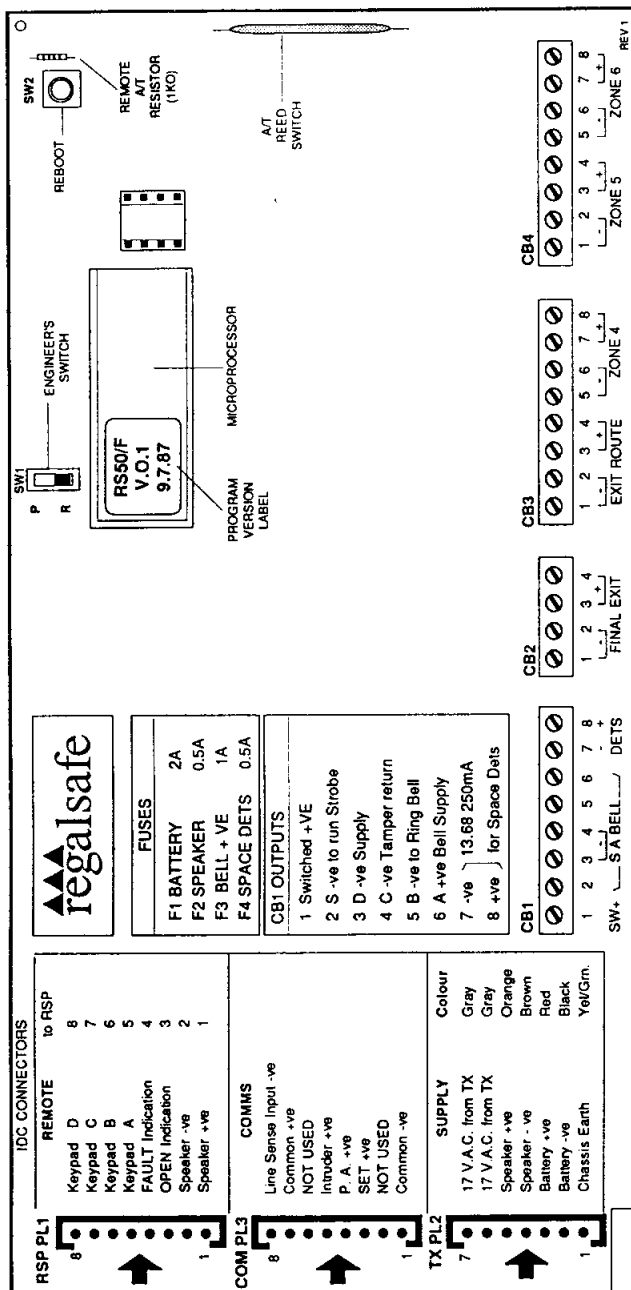
FAULT ☐

NO MAINS ☐

NO LINE ☐

3

# SECTION 1 THE REGALSAFE RS50/F PC BOARD & FACIA LAYOUT



## SECTION 2 CIRCUIT FUNCTIONS

- 2.1 **PANIC.** This gives a 24 hr monitored circuit and can be programmed for silent signalling.
- 2.2 **24 HOUR.** This gives a 24hr double pole tamper circuit.
- 2.3 **FINAL EXIT.** This is programmed to set the system by opening and closing the final exit door, it can be programmed to be a timed setting.
- 2.4 **EXIT ROUTE.** This is a walk through circuit during the setting and unsetting of the system in Full guard, it behaves like a final exit when unsetting in Part Guard.
- 2.5 **GUARD 2 KNOCK.** This is a normal night circuit which requires 2 activations to trip it.
- 2.6 **GUARD.** This is a normal night circuit.
- 2.7 **CHIME.** This gives an internal warning and is used to monitor areas when the system is unset, it can be programmed to be latching or non-latching.

## SECTION 3 SIGNALLING OUTPUTS

- 3.1 **PANIC.** This sends a signal when a panic button is pressed or the Duress Code is used.
- 3.2 **INTRUDER.** This sends a signal if any circuit is tripped when the system is set in Full guard, and can be programmed not to signal in Part guard.
- 3.3 **SET.** This sends a signal when the system is set.

## SECTION 4 FIXING THE PANEL TO THE WALL

- 4.1 Remove the two anti-tamper screws and remove the lid by sliding it upwards 4cm until the concealed locking tab is disengaged.
- 4.2 Unplug the power loom PL2.
- 4.3 Remove the PC Board assembly and place it in a safe place.
- 4.4 Hold the box up to the wall and mark the fixing holes.
- 4.5 Drill the holes and fit the wall plugs.
- 4.6 Screw the box to the wall (minimum 3 x 1½" No. 8 screws).
- 4.7 Replace the PC Board assembly.
- 4.8 Plug the power loom onto PL2.
- 4.9 Ensure that a link is fitted to the middle plug PL3 between pins 1 & 8.
- 4.10 Connect the mains cable into the mains terminal block.
- 4.11 The mains fuse is 1 amp H.R.C., a 2 amp is acceptable.
- 4.12 Leave the fuse out of the mains block until you are ready to power up.
- 4.13 **It is absolutely essential that the panel is properly earthed in accordance with current IEE regulations.**

## SECTION 5 COMMISSIONING

**It is good engineering practice to check all the control panel functions before removing any of the links.**

- 5.1 Locate the engineer switch SW1 and slide it up to the "P" position.
- 5.2 Shunt the anti-tamper reed switch using a crocodile jumper or a magnet.
- 5.3 Insert the fuse and carrier into the mains block, the facia lights will flash and the internal sounder will give loud pips.
- 5.4 Press ☐ twice followed by ☐ ☐ ☐ ☐ the pips will stop and only the green Open light should be illuminated.

- 5.5 Press **4** **3** **2** **1** the Green Open light will flash.
- 5.6 Press Full, the continuous exit tone will start and the Green Open light will go out.
- 5.7 Momentarily short between the Final Exit loops, terminals 2 & 3 on CB2, the continuous Exit tone will stop.  
The system is now set in Full guard.
- 5.8 Momentarily short between Zone 5 loops, terminals 2 & 3 on CB4, the Alarm tone will sound.
- 5.9 Momentarily short between the Final exit loops, terminals 2 & 3 on CB2, the following lights should illuminate.  
**RED** = Exit light (Zone 1).  
**RED** = Zone 5 light.  
**RED** = Fault light (Flashing).
- 5.10 Press **4** **3** **2** **1** to silence the alarm and open the system, the Green Open light will be on.
- 5.11 Press **\*** Zone 1 light will go out leaving Zone 5 lit indicating that Zone 5 was the first to alarm, the Fault light will stop flashing as you have now cleared lockout.
- 5.12 Press **4** **3** **2** **1** the Green Open light will flash.
- 5.13 Press Part, the quiet clicking (night set tone) will start and the following lights should be illuminated.  
**RED** = Zone 6 light (Flashing).  
**RED** = No Line light (Flashing).  
Indicating that Zone 6 is programmed to auto-deselect on part guard and that the intruder alarm output is disabled when the system is set in part guard. (These are programmable options).
- 5.14 After 20 seconds the quiet clicking (night set tone) will stop.  
The system is now set in Part guard.
- 5.15 Press **4** **3** **2** **1** ; only the Green Open light should be illuminated.  
The panel is now running with the preset factory programme.

## **SECTION 6 CONNECTING THE WIRING TO THE PANEL**

- 6.1** Connection details are shown in (Section 1) and also on the self adhesive lid label provided with each panel, we recommend that you check each circuit resistance (less than 100 ohms) or in-circuit voltage drop (normally less than 200 mv except for the S.A. Bell tamper return which must not exceed 1.0v for reliable operation) and note these in the spaces provided on the label.
- 6.2** To reduce the volume of the internal speaker during commissioning you can temporarily remove the speaker fuse F2.  
If an extension speaker or remote setting point is used, uprate the fuse F2 to 1 amp after commissioning.
- 6.3** When all the connections are complete you should connect the Standby battery and check the standby current drain via the battery feed.
- HINT** Lift the ACC Fuse, F1, and measure across the holder.
- 6.4** Remove the fuse carrier from the Mains block and confirm that the No Mains light illuminates.  
There should be no alarm response from the panel as the mains feed is interrupted.

## **SECTION 7 THE FACTORY SET PROGRAMME**

### **7.1 ZONES**

Zone 1 = Final Exit

Zone 2 = Exit Route.

Zone 3 = Used for anti-tamper indication only.

Zone 4 = Guard with auto-omit on chime.

Zone 5 = Guard with auto-omit on chime.

Zone 6 = Guard with auto-omit on Part guard.

### **7.2 SYSTEM FUNCTIONS**

- a.** Customer reset.
- b.** Non-latching chime.



- c. Final door set on Full guard.
- d. Timed set on Part guard.
- e. Bells only on Part guard, (ie.) when the system is set on Part guard the communicator will only signal a Panic alarm.
- f. Bells and strobe operate when the Panic zone is activated.

### 7.3 SIGNALLING FUNCTIONS

- a. Auto-reset 3 times and automatically isolates any permanently faulty zone or zones.
- b. Internal siren stops with the bell.

### 7.4 TIMER SETTINGS

- a. Exit time (used on Part guard) = 20 seconds.
- b. Entry time = 40 seconds.
- c. Bell start time (instant) = 00 minutes.
- d. Bell stop time = 15 minutes.

## SECTION 8 THE FACTORY SET CODES

- a. Engineers code = 

6
---

6
---

6
---

6
---
- b. Access code (switches the system on & off) = 

4
---

3
---

2
---

1
---
- c. Duress code (switches the system off and gives a Panic alarm output) = 

9
---

9
---

9
---

9
---
- d. Boss code (allows changing of all the codes except the engineers) = 

0
---

0
---

0
---

0
---

**NOTE: Do not repeat any of these codes.**

## SECTION 9 CHANGING THE FACTORY SET CODES

- a. To change the Engineer code (see section 18).

- b. To change the Access code, Enter **0 0 0 0 \* 2** the fault tone will sound, enter the new code (any four digits in any order e.g. **1 2 1 2**) after the last digit the tone will stop.

You have now changed the Access code.

- c. To change the Duress code, Enter **0 0 0 0 \* 1** the fault tone will sound, enter the new code (any four digits in any order e.g. **2 1 2 1**) after the last digit the tone will stop.

You have now changed the Duress code.

- d. To change the Boss code, Enter **0 0 0 0 \* 3** the fault tone will sound, enter the new code (any four digits in any order, e.g.

**8 0 8 0**) after the last digit the tone will stop.

You have now changed the Boss code.

## SECTION 10 TO ENABLE PROGRAMME CHANGES TO BE MADE

- Slide the Engineer switch, SW1, down to the "R" position.
- Press the Reboot button, SW2, the siren will sound.
- Slide the Engineer switch, SW1, up to the "P" position.
- Enter **\* 6 6 6 6** the siren tone will change to a quiet clicking tone (night set tone).
- Slide the Engineer switch SW1 down to the "R" position.
- Enter **\* 1 2 3 4**

**NOTE** It is only necessary to carry out the above procedure when an RS50/F is to be reprogrammed after power up.

## SECTION 11 THE PROGRAMME

- The programme is arranged into four programming blocks.
- Each block is identified by a separate Tone.
- Block 1 - Clicking tone = Night set tone.

enables programming of zone functions.

- d. Block 2 - Continuous tone = Exit tone.  
enables programming of system and signalling.
- e. Block 3 - Intermittent tone = Entry tone.  
enables programming of timers.
- f. Block 4 - Fast Intermittent = Fault tone.  
enables programming of Engineer code.

**NOTE 1:** To move from block to block press the **[\*]** button.

**NOTE 2:** The position in the block is identified by the four status lights, and by pressing the **[#]** button you can move around inside each block.

<b>Status lights</b>	: – Open light.	Fault light.
	: – No Mains light.	No Line light.

## **SECTION 12 TO ENTER THE PROGRAMME**

- a. Ensure that the system is not set.
- b. Remove the panel lid, the siren will sound, ensure that the Engineer switch SW1 is in the "R" position. (if the switch is in the "P" position at this stage carry out instructions as described in Section 10).
- c. Slide the Engineer switch SW1 up to the "P" position.
- d. Enter the Engineer code (factory set at **[6][6][6][6]**) the siren tone will change to a clicking and the Green Open light will illuminate.

**NOTE** The clicking tone indicates that you are in the zone functions block.

The Green Open light indicates you are at Zone 4.

- e. Programme Zones 4, 5 or 6 using the Zone Functions Table (Section 14 a to j).

## **SECTION 13 TO MAKE PROGRAMME CHANGES**

<b>SOUND</b>	= CLICKING
<b>BLOCK</b>	= ZONE FUNCTIONS
<b>STATUS LIGHT ON</b>	= OPEN

**POSITION IN BLOCK** = ZONE 4

Programme Zone 4 using the Zone Functions table (Section 14).  
When complete press **#** the Fault Light will illuminate.

**FAULT** = ZONE 5

Programme Zone 5 using the Zone Functions table (Section 14).  
When complete press **#** the No Mains Light will illuminate.

**NO MAINS** = ZONE 6

Programme Zone 6 using the Zone Functions table (section 14).  
When complete press **\*** the tone will change from Clicking to Continuous, you are now in the System & Signalling Block.

**SOUND** = CONTINUOUS

**BLOCK** = SYSTEM & SIGNALLING

**STATUS LIGHT ON** = OPEN

**POSITION IN BLOCK** = SYSTEM

Programme System using the System Functions table (Section 15).

## **SECTION 14 THE ZONE FUNCTIONS TABLE**

<b>FUNCTION</b>	<b>ZONE INDICATION LIGHTS ON</b>	
a. <b>Panic</b>	1	3
b. <b>24 HOUR</b>		3
c. <b>Final Exit</b>	1	2
d. <b>Exit Route</b>		2
e. <b>Guard 2 Knock</b>	1	
f. <b>Guard</b>	No lights	

**NOTE** The above table denotes the Zone indication lights on buttons 1, 2 and 3 of the key pad. They can be switched on and off (by pressing the buttons) to display the zone functions.

## FUNCTION                      ZONE INDICATION LIGHTS ON

- |                            |                              |
|----------------------------|------------------------------|
| g. No Manual Omit          | 4                            |
| h. Auto-Omit on Part Guard | 5                            |
| i. Auto-Omit on Chime      | 6                            |
| j. Soak Test               | Enter 7 No light indication. |

**NOTE 1:** The above table denotes the Zone indication lights on buttons 4, 5 and 6 of the key pad. They can be switched on and off (by pressing the buttons) to display the zone functions.

**NOTE 2:** Only one of the Functions (a to f) can be applied to each zone, e.g. you cannot have 2 Knock on an Exit Route.

**NOTE 3:** Functions (g to j) can be applied in any combination to any zone e.g. you can have Auto-Omit on Chime on an Exit Route.

## SECTION 15 THE SYSTEM FUNCTIONS TABLE

### FUNCTION:    ZONE LIGHTS ON    : ZONE LIGHTS OFF

- |                                |   |                       |
|--------------------------------|---|-----------------------|
| a. Customer Reset              | 1 | : ENGINEER RESET      |
| b. Latching Chime              | 2 | : NON-LATCHING CHIME  |
| c. Timed Exit                  | 3 | : FINAL DOOR SET      |
| d. Bells Only on Part Guard    | 4 | : SIGNALLING ON PART  |
| e. No Bells or Strobe on Panic | 5 | : BELLS & STROBE - PA |

When complete press  the Fault Light will illuminate.

**SOUND**                                      = CONTINUOUS

**BLOCK**                                        = SYSTEM & SIGNALLING

**STATUS LIGHT ON**                      = FAULT

**POSITION IN BLOCK**                  = SIGNALLING

Programme SIGNALLING from the Signalling Function table (Section 16)

## SECTION 16 THE SIGNALLING FUNCTIONS TABLE

FUNCTION	ZONE INDICATION LIGHTS ON
----------	---------------------------

- |                             |     |
|-----------------------------|-----|
| a. Reset 7 Times            | 1 2 |
| b. Reset 3 Times            | 2   |
| c. Reset Once               | 1   |
| d. Bell Stop Only No Lights |     |
| e. Continuous Auto-Reset    | 3   |

**NOTE:** The above table denotes the Zone lights on buttons 1, 2 & 3 of the Key Pad. They can be switched on and off (by pressing the buttons) to display the zone functions.

- |                              |   |
|------------------------------|---|
| f. Instant Bell on Entry     | 4 |
| g. No Bell Cut Off           | 5 |
| h. No Internal Siren Cut Off | 6 |

**NOTE:** The above table denotes the Zone lights on buttons 4, 5 & 6 of the key pad. They can be switched on and off (by pressing the buttons) to display the Zone Functions.

When complete press ☐\* the tone will change from Continuous to Intermittent, you are now in the Timer Block.

## SECTION 17 TIMERS

SOUND = INTERMITTENT

BLOCK = TIMERS

STATUS LIGHT ON = OPEN

POSITION IN BLOCK = EXIT TIMER

**NOTE: Zone lights 1-6 MUST be ignored in this mode**

Enter 2 digits between 00 and 99 seconds  
press **#** the Fault Light will illuminate

**FAULT** = ENTRY TIMER

Enter 2 digits between 00 and 99 seconds  
press **#** the No Mains light will illuminate

**NO MAINS** = BELL DELAY

Enter 2 digits between 00 and 99 minutes  
press **#** the No Line light will illuminate

**NO LINE** = BELL CUT OFF

Enter 2 digits between 00 & 99 minutes

When complete press **\*** the tone will change from Intermittent to Fast Intermittent. You are now in the Engineer Code Block.

## SECTION 18 ENGINEER CODE

You can now change the Engineer Code (factory set at 6666) by entering Four digits of your own choice. After the last digit the tone will change to Clicking which brings you back to the start of the programming. If you do not want to change the Engineer Code press **\*** this will bring you back to the start of the programming.

**NOTE: You can scan and change the programme as many times as you require by pressing **\*** or **#****

## SECTION 19 ENGINEERS TEST MODE

You can use SW1 to alternate between Engineers Test Mode (sliding switch down) and Engineers Programming Mode (sliding switch up). This allows you to check out the system and make any adjustments to the Programme before "Signing Off".

## SECTION 20 SIGNING OFF

- a. Slide Engineers switch SW1 down to the "R" position.
- b. Replace the Control Panel Lid.
- c. Make any final test using the Engineers Code.
- d. Press
- e. Enter the Sign Off Code which is always

## SECTION 21 ENGINEER RESET

The System can be programmed to either Customer reset or Engineer reset. If System is programmed for Engineer reset, reset as follows:-

- a. Remove the control panel lid.
- b. The tamper sounder will sound.
- c. Switch the Engineers switch SW1 to the "P" position.
- d. Enter your Four Digit Engineer Code.
- e. The sounder will stop.
- f. Switch the Engineers switch SW1 down to the "R" position.
- g. Replace the control panel lid.
- h. Press
- i. Enter the Sign Off Code (     ).
- j. The panel is now reset.