

ENTROTAG 100

INSTRUCTION MANUAL

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Recommended Installation Procedures for Entrotec Equipment

The recommendations given below assume the use of CW1308 type cable and are made in conjunction with reference to IEE Wiring Regulations 16th Edition 528-01 'Proximity to electrical services' and BS EN 50081, BS EN 50882 and BS EN 50133-1.

Door entry and access control equipment are in the 'Band 1' classification.
Mains cables are in the 'Band 11' classification.

Other cable types can be used but the guidelines given below may or may not be relevant and other installation procedures may need to be adapted.

All unprotected cable runs should be kept away from mains cables as the radiation from these cables may cause the system to be erratic in operation.

In a building where the only way to wire is via an electrical intake, riser cupboard or lift shaft then metallic trunking or conduit should be used unless there is sufficient room within the cupboards to distance the door entry cables from the mains cables.

Mains cables should not be run in the same trunking / conduit as the door entry cables (although segregated metallic compartment trunking is acceptable).

We recommend that where the cabling is not protected in a metallic containment system that a distance of 1 metre should be adopted unless other protective measures have been taken conforming to the relevant industry regulations.

If unprotected cables are to run across mains cables then this should be at 90 degrees.

In accordance with the IEE wiring Regulations (16th Edition) please ensure that **all** metalwork is bonded to the buildings earth, this includes the main control panel, all conduit (if metallic) and most importantly **THE EXTERNAL CALL PANEL**. A ring connector is provided in the front panel for termination of the earth cable but this bonding is often ignored, please ensure that this connection is made.

If you have any queries about a particular site or are in need of technical assistance please telephone, fax or email Entrotec for help –

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Technical Manager
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PREMAN1100/VAT/2

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2 System Description

The ENTROTAG[®] 100 control unit is a low cost, high quality proximity control unit. This product is specially designed and manufactured to read the presentation of valid proximity tokens to a reader input, and then output a control signal via a relay contact. In most cases this function is used for access control by operating a lock release device. The ENTROTAG[®] 100 can be used for many other access control solutions including barrier control and disabled door entry. In general use, the product provides a low maintenance security solution for Local Authority low rise housing applications, schools, offices and clubs.

The ENTROTAG[®] product has the facility to have two independent proximity reader inputs, which in turn control two user selectable outputs. The programmable outputs from the ENTROTAG[®] 100 are in the form of standard relay contacts. These relay contacts can be hardware programmed by the user to be voltage free or have powered outputs.

The ENTROTAG[®] 100 is simple and easy to use. The programming is extremely user friendly and is aided by the built in programming reader and LED display.

SYSTEM INPUTS

3 System Inputs

3.1	Select Button	3.5	Request to Exits (REX)
3.2	Enter Button	3.6	Battery Back up
3.3	Programming reader	3.7	Input Supply
3.4	Readers	3.8	Links 1 and 2

System Inputs Description

3.1.1	Select Button	This Button is used to manually select set up options in the programming mode
3.2.1	Enter Button	This Button is used to manually confirm set up options in the programming mode
3.3.1	Programming reader	The Entrotagô 100 Control unit has a built in programming reader which is discretely located around the two digit LED display
3.4.1	Readers	The Entrotagô 100 Control unit has two reader inputs. The reader inputs are located as per the enclosed wiring schematic and have four independent connections. Two connections are for power and two connections are for data communication
3.5.1	Request to Exits These (REX) selected.	The Entrotagô 100 Control unit has two request to exit inputs. inputs are designed to operate a relative relay output when The request to exit function is activated when a zero volts signal is momentarily presented to the REX connection. This in turn the relative relay output for a timed period
3.6.1	Battery Backup input.	The Entrotagô 100 Control unit has an optional battery backup When a battery is fitted in this position the system shall have full operation in the event of a mains failure.
3.7.1	Input Supply	The Entrotagô 100 Control unit has a non bias 12v DC or AC supply input.
3.8.1	Links 1 and 2	The Entrotagô 100 has two manually selectable links. The links are identified as LK1 and LK2. The links are located at the bottom right hand side of the PCB and are factory fitted. The links control whether the relay outputs are voltage free or powered.

SYSTEM OUTPUTS

4 System Outputs

- 4.1 Relay Output 1
- 4.2 Relay Output 2
- 4.3 Display

System Outputs Description

- 4.1.1 Relay Output 1 This is a standard relay output. In most cases this is connected to an electric locking device. The relay output will operate when a valid relevant input has occurred. ie A programmed key is presented to the relevant reader or a request to exit

- 4.2.1 Relay Output 2 As per 4.1.1 Relay Output 1

- 4.3.1 Display which The Entrotag 100 control unit has a two digit LED display provides the user with a simple programming readout

5 Inputs to Outputs

Inputs	Outputs
Reader 1 ®	Relay Output 1
REX 1 ®	Relay Output 1
Reader 2 ®	Relay Output 2
REX 2 ®	Relay Output 2

PROGRAMMING

6 Programming Instructions

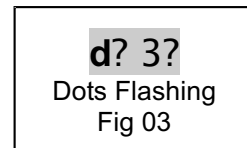
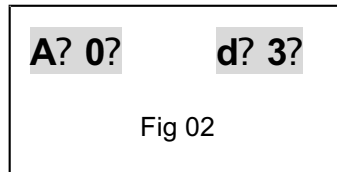
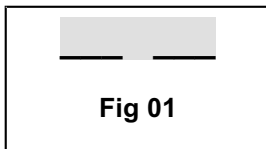
6.1 How to add a key

6.2 How to delete a key

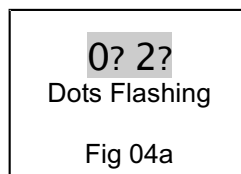
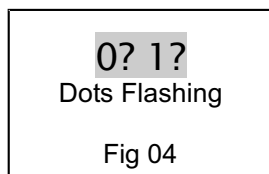
6.3 Setting up relay output times (door times)

6.1.1 How to add a key

- a **Press ENTER** – Two horizontal bars will illuminate on the LED display as per fig 01
- b **Present a master sensortag to the LED display**
A master number will be displayed eg A0 followed by d3 as per fig 02
D3 represents the door relay outputs that relate to the user keys you wish to programme
ie D3 = door relay outputs 1 and 2, d1 = door relay output 1, d2 = door relay output 2
- c **Press ENTER** - Two dots flash under d3. As per fig 03
- d **Press SELECT** – until the desired output is selected
ie d3 = door relay outputs 1 and 2, d1 = door relay output 1, d2 = door relay output 2
- e **Press ENTER** – to confirm selection and stop dots flashing



- f **Press SELECT** – 0.1 will illuminate on the LED display with the dots flashing as per Fig 04. This number is the first user key number in the Entrotagô 100 Memory. The Entrotagô 100 has 99 available user key positions numbered in sequence. When the dots are flashing this means the user key position is free and able to accept a new key. When the dots are on constantly this represents a user key number, which is currently being used. To select another user key number press **SELECT** until the desired user key position is reached or the next free slot is available ie flashing dots.



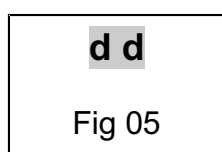
- g **Present a new user key to the display.** The display will flash to confirm the key has been read.
- h **Press ENTER** to confirm. The display will increment to the next number as per Fig 04a.
- i **Repeat steps g and h until all keys are added. RECORD** all key entries in the sensortag management list in section 9.
- j **Press SELECT then ENTER simultaneously** to quit programming. Programming mode will terminate automatically 30 seconds after the last press of any button.

PROGRAMMING

6 Programming Instructions

6.1 How to delete a key

- a **Press ENTER** – Two horizontal bars will illuminate on the LED display as per fig 01
- b **Present a master sensortag to the LED display**
A Master number will be displayed eg A0 followed by d3 as per fig 02 page 5
- c **Press SELECT** – The LED display now shows the first user key in the memory
The Entrotag 100 has user key positions. In the range 01 to 99
- d **Press SELECT** – until the desired user key number is reached
- e **Press ENTER** and Hold for approximately 10 seconds. Until the display reads dd
As per fig 05. **THE KEY HAS NOW BEEN DELETED**



- f Repeat steps d and e Until all unwanted keys are deleted
- g Record all key deletions in the Sensortag Key Management list in section 9
- h **Press SELECT then ENTER simultaneously** to quit programming
Programming mode will terminate automatically 30 seconds after the last press of any button

6.2 Setting up relay output times (door times)

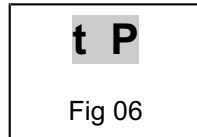
- a Please refer to section 4.1.1
- b **Press ENTER** two horizontal bars will illuminate on the LED display as per fig 01
- c Present a **Master Sensortag** to the LED display
- d **Press SELECT until t1 or t2 is displayed**

t1 = Relay output time for relay 1 output ie (Door 1)
t2 = Relay output time for relay 2 output ie (Door 2)
- e Press **ENTER** to adjust the appropriate relay time
The display now shows the current relay operation time in seconds
- f **Press SELECT until the desired relay time is obtained**
RANGE = 02 to 60 seconds (00 setting = 0 seconds ie No operation)
- g **Press ENTER** to confirm the time set in step f
- h **Press SELECT then ENTER simultaneously** to quit programming. Programming mode will terminate automatically 30 seconds after the last press of any button

ERRORS AND TESTS

6 Error Messages

When programming keys in section 6.1 you may encounter an error message as in 0.6 This indicates the sensortag you are attempting to add has already been programmed ie “Tag Programmed”



7 Testing

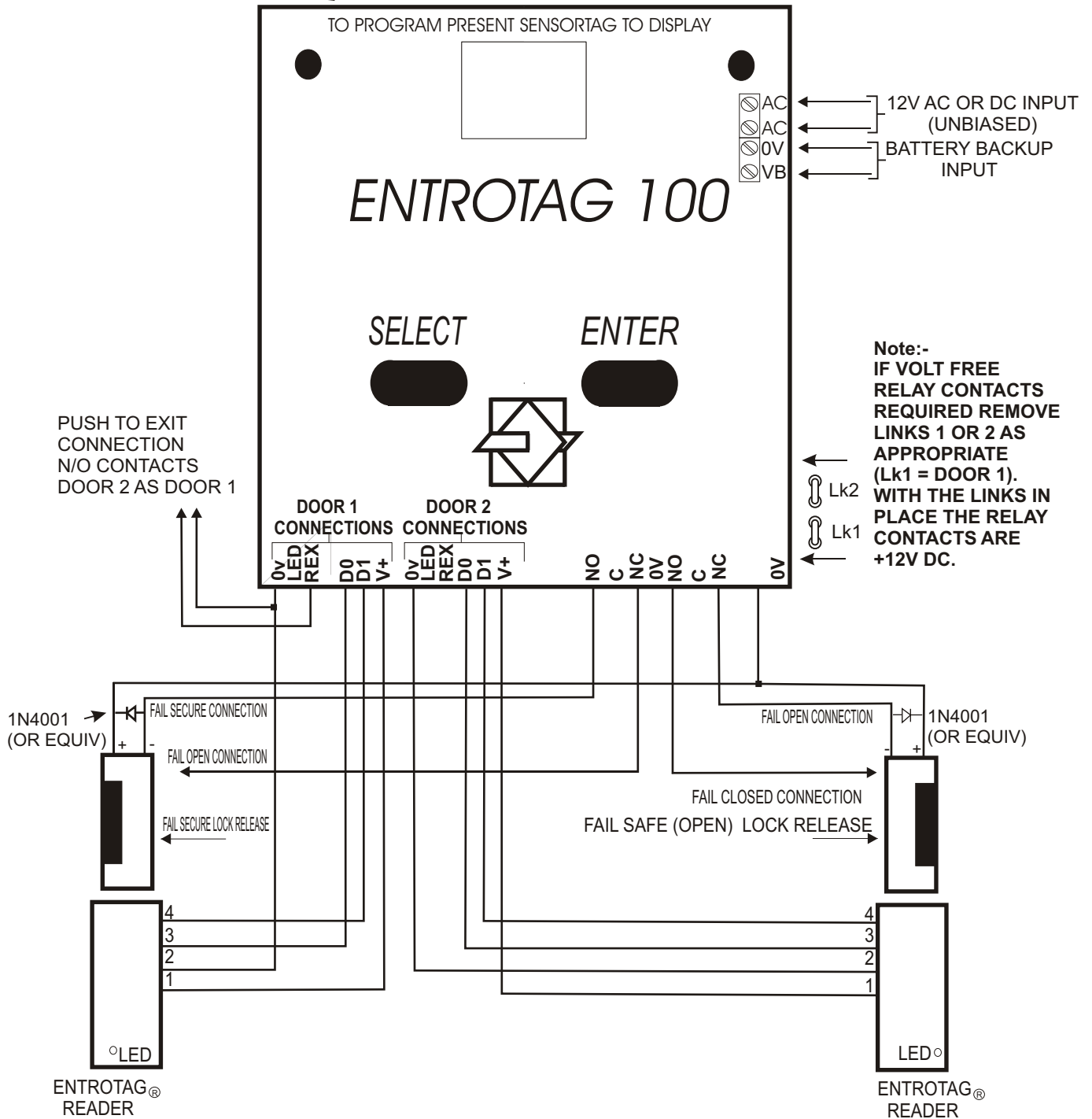
When Section 6 has been completed to your requirements you are now ready to test the programming of the Entrotag 100

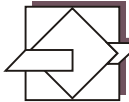
- a** Present each key or relevant new or deleted key to the reader input(s) on the Entrotag 100
- b** Check the operation and time of the programmed relay output contact
See section 5 for details
- c** Check the visual display corresponds with the Sensortag Management list in Section 9

Using PCB ENT9751/1&2 ENTROTAG[®] 100

All systems prior to 1/10/2004
Board number here

WIRING SCHEMATIC.

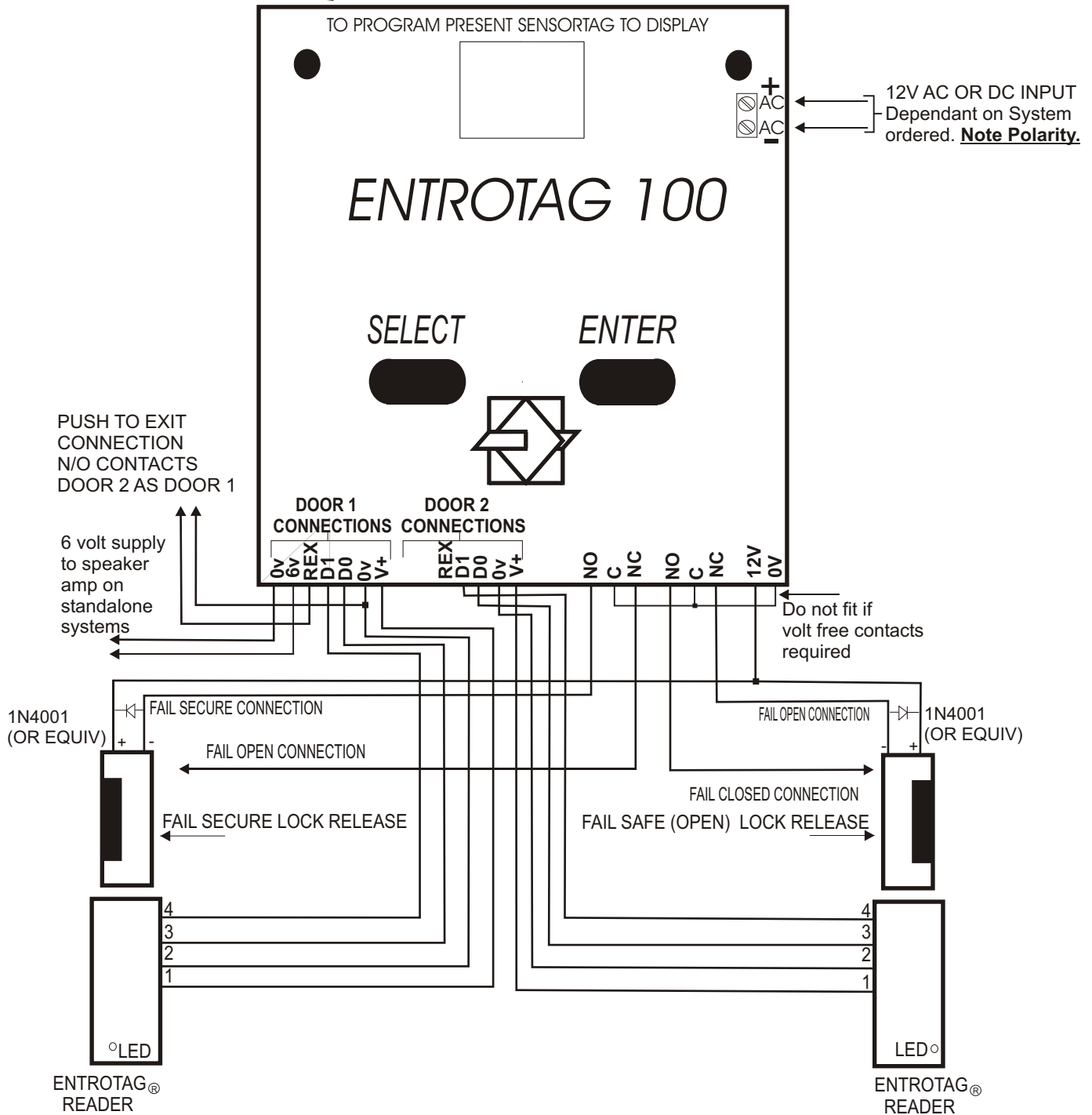


DATE: 2 9 / 18 / 19 7	DRG.NO.	DESC.	DRAWN BY:
 ENTROTEC LTD 1 KELVIN SQ., HOUSTON IND. EST., LIVINGSTON, WEST LOTHIAN, EH54 5PF. TEL. 01506 441100 FAX. 01506 442400	WIR/SCH0897/076	ENTROTAG[®] 100 WIRING SCHEMATIC	V.A. TURNER
			CHECKED BY:

IMPORTANT. ALL CABLES TO BE KEPT WELL AWAY FROM HIGH VOLTAGE CABLES. PLEASE CONSULT OUR INSTALLATION GUIDELINE SHEET OR CONTACT OUR TECHNICAL DEPT. FOR ADVICE ON 01506 441100.

Using PCB ENT9751/3 **ENTROTAG® 100**
 All systems after 1/10/2004
 Board number here

WIRING SCHEMATIC.



DATE: 1 2 / 1 0 / 2 0 0 4	DRG.NO.	DESC.	DRAWN BY:
 ENTROTEC LTD 1 KELVIN SQ., HOUSTON IND. EST., LIVINGSTON, WEST LOTHIAN, EH54 5PF. TEL. 01506 441100 FAX. 01506 442400	WIR/SCH0897/076	ENTROTAG® 100 WIRING SCHEMATIC	V.A. TURNER
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