

K50i Series

Technical Manual





K50F



K50P

K50F + K51S

03 April 2008

Version 1.01

M. Hume



RAYTEL SECURITY SYSTEMSSouthern Office:Northern Office:Raytel House20-23 Woodside Place,Brook RoadGlasgow,RayleighStrathclyde,Essex,G3 7QF.SS6 7XHTel:(0141) 5821275Tel: (01268) 749311Fax: (01268) 749315

CONTENTS

SYSTEM OVERVIEW
Key Features and Connectors
Box Contents & Installation4
Specification5
SYSTEM DIAGRAMS
Earth Connection
Fail Safe Lock Wiring and Programming
Fail Secure Lock Wiring and Programming 8
Fail Safe Lock Wiring and Programming with Keypad In/Out9
Fail Secure Lock Wiring and Programming with Keypad In/Out10
Wiring and Programming with Door Entry Systems11
Single Door Proximity with Fail Safe Lock Wiring and Programming
Single Door Proximity with Fail Secure Lock Wiring and Programming
Doorbell Function Wiring and Programming14
Alarm, Tamper and Door Contact Wiring and Programming15
Lift Control Wiring and Programming16
Up to 254 Keypads Direct to PC 17
Up to 254x16 Keypads using 716E 16 Door Controller18
Up to 254 Keypads Direct to PC with RS-485 Repeater
BASIC PROGRAMMING
Entering/Exiting Programming
Factory Reset, Changing Master Code and Lock Time
Adding User Codes, Enabling RTE and Setting Latch Mode
Anti-Passback
ADVANCED PROGRAMMING
Adding/Deleting Tokens
Doorbell Function
Alarm Functions
Lift Control
Setting AR-401RO16B DIP Switches
Auto-Open Zone Programming 28
Programming Charts
Resetting Master Code
NETWORKING
Connecting Directly to a PC
Networking Under an AR-716E
PROGRAMMING CHART
TABLE OF USERS

SYSTEM OVERVIEW

Key Features

The K50P is a versatile Keypad capable of many functions and several different mounting options.

Key Features:

- Upto 1024 different 4 digit user codes
- 2 internal open time zones
- Tamper Switch
- 32 floor lift control
- Door Monitoring
- Code in/Code out (with additional Wiegand Keypad)
- Optional Anti-pass back function with Code In/Out
- Egress Button
- Network capability up to 254 x 16 doors each with Keypad In/Out
- Duress Code
- Optional Lock Outputs Timed 0.1 to 600 seconds, Latched On/Latched Off
- Universal Serial Port for LED Display, Printer, Lift Control etc.
- Alarm function for Tamper, Forced Entry, Duress and Door Open
- Will run as a Standalone Controller during Host Controller failure
- Proximity Card flash edit mode
- Buffer for up to 1200 Transactions
- Auto-Relock Function
- Real Time Clock

Connectors

2 3		2	Wire Application	Wire	Colour	Description	
		3		1	Blue/White	(N.O.) DC24V 1A	
		4	Door Relay	2	Purple/White	(N.C.) DC 24V 1A	
		6		3	White	(COM) DC24V 1A	
		7	Door Sensor	4	Orange	Negative Trigger Input	
		8	Exit Switch	5	Purple	Negative Trigger Input	
	P2	7	Alarm Output	6	Grey	Transistor Output (Open Collector Active Low)	
		5	Derman	7	Thick Red	DC Power 12V	
		4	Power	8	Thick Black	DC Power 0V	
			wire Application	1 1	Thick Green	Description RS-485 (B-)	
		2	Table 2: Connector P2 colour coding.				
			Host Connection	1	Thick Green	RS-485 (B-)	
				2	Thick Blue	RS-485 (A+)	
			Wiegand	3	Thin Blue	Wiegand DAT:1 Input	
				4	Thin Green	Wiegand DAT:0 Input	
			Sounder	5	Pink	Sounder Output 5V/100mA, Low	
			LED	6	Brown	Green LED Output 5V/20mA, Max	
				7	Yellow	Red LED Output 5V/20mA, Max	
			P3 Table 3:	Tampe	r Switch Co	nnector P3 colour coding.	
			Wire Application	Wire	Colour	Description	
				1	Red	Normally Closed	
			Tamper Switch	2	Orange	Common	
				2	Vollow	Normally Onen	

SYSTEM OVERVIEW



SYSTEM OVERVIEW

K50i Specification								
Mode No.		M4	M6	M8				
User Capacity		1,024	65,536	1,024				
Event Log		1,200	N/A	1,200				
Access Mode		5-Digit User Address+ 4-Digit Individual Password	4-Digit Individual Password					
Support		Stand-Alone / Networking						
Voltage			9-24 VDC 9-18 VAC					
Power Requir	rement		<3W					
Communicati	on Interface		RS-485					
Baud Rate			9600 bps (N, 8, 1)					
Operating Ter	mperature		-20°C ~ +75°C					
DI Input		Egress Button Door Sensor						
DO Output		1	Door Relay Output					
Transistor Ou	Itput	Dure	ss/Alarm/Arming LE	D				
Door Relay Ti	me		0, 0.1~600 sec.					
Alarm Relay 1	lime	0, 1~600 sec.						
Tamper Resis	t. Switch	Lir	nit Switch (Form C)					
Anti-Passbac	k	Yes						
Serial Out		TTL (4800 bps, N, 8, 1)						
IP Rating		IP65						
Real Time Clo	ock	Yes						
Indicator		1 Bi-Colour LED 1 Piezo Sounder						
Colour	PBT Housing		Gray ABS Plastic					
Coloui	Metal Box	Bru	shed Stainless Stee	l				
Dimensions	PBT only	113.75	5(L)x65.20(W)x28.20	(H)				
(mm)	Metal Box	150)(L)x92(W)x49.28(H)					
Housing Mate	rial	PBT Keypad Housing Metal box: 316 Stainless Steel						



























ADDITIONAL CONNECTION DIAGRAM



BASIC PROGRAMMING

Entering and Exiting Programming Mode							
To Enter Programming Mode → ★ Master Code # (★ 123456 # default code)							
To Exit Programming Mode → 🗶 #							
Factory Reset	t. Changing M	laster Code	& Lock Time				
1. Restoring Factory Set	tinas						
To Reset Keypad \Rightarrow 20 \times 000 # \Rightarrow 15 \times 0000 # \Rightarrow 24 \times 000 # \Rightarrow							
→ 26 ★ 00000 ★ 01023	★ 2 # → 28 ★ 000 #	→ 29 × 29 × # → ×	#				
2. Changing the Master (Code						
To Change Master Code	→ 09 ★ Enter New M	aster Code Twice #					
4. Changing the Lock Tir	ne						
To Change Lock Time →	02 * 3-Digit Lock Tim	ne in Seconds #					
3. Changing the Control	Mode						
To Change Control Mode	e → 04 ★ 4, 6 or 8 #						
Enter 4 For Control Mode	e 4						
Enter 8 For Control Mode	e 8						
See below.							
Mode M4 M6 M8							
Application	Stand Alana		Stand Alana				
System	Networking	Stand-Alone	Networking				
Code Capacity	1024	1	1024				
Access Mode	9-Digit Individual Code	4-Digit Common Code	4-Digit Individual Code				
Event Capacity	1200	N/A	1200				
Holiday Function	Yes	No	Yes				
Duress	Yes	No	Yes				
Time Zone	11	N/A	11				
Lift Control	32	N/A	32				
Anti-Passback	Yes	N/A	Yes				

NOTICE

Most applications require the Keypad to be set up in Mode 8.

BASIC PROGRAMMING

Adding User Codes, Enabling RTE and Latch Mode
1. Adding Individual User Codes
To Add Individual User Codes in Mode 8 → 12 ★ User Address ★ 4-Digit Code #
2. Adding a Common Code
To Add a Common Code in Modes 4 and 6 \rightarrow 15 \star 4-Digit Common Code #
3. Setting the Lock to Latch Mode
To Set Latch Mode \rightarrow 02 \star 000 #
4. Enabling Exit Function
To Enable Exit Function → 20 ★ 016 #
5. Deleting Individual User Codes
To Delete Individual User Codes → 10 ★ Start Address ★ End Address #
NOTICE
<i>Refer to Chart A 20*DDD# on page 29 for the values needed for programming the Exit Function.</i>

BASIC PROGRAMMING

Anti-Passback
1. Enabling Anti-Passback (Optional)
To Enable Anti-Passback → 20*128#
2. Enable User For Anti-Passback (Optional)
To Enable Users for Anti-Passback
\Rightarrow 26 + Start Address + End Address + 0 = Enable or 1 = Disable #
20 × Start Address × Lind Address × 0 - Lindble of 1 - Disable #
NOTICE
Refer to Chart A 20 *DDD# on page 29 for the values needed for

Adding/Deleting Tokens
1. Adding a Single/Multiple Non Sequential Random Token
To Add Single/Non Sequential Token → 19 ★ User Address ★ Token Quantity # Present Token to Reader. When adding multiple tokens the User Address will automatically increase with each Token.
2. Adding Multiple Sequential Tokens
To Add Multiple Sequential Tokens → 19 ★ User Address ★ Token Quantity # Present Lowest Numbered Token to Reader.
3. Deleting Tokens
To Delete Tokens → 10 ★ Start User Address ★ End User Address #
3. Suspending Tokens
To Suspend Tokens → 10 ★ Start User Address 9 End User Address #
Example
Deleting a Single Token
Enter Programming Mode → ★ Master Code # → 10 ★ 00001 9 00001 # → ★ # (00001 = Start User Address, 00001 = End User Address) Token 00001 has been Deleted.
Suspending Multiple Tokens
Enter Programming Mode → ★ Master Code # → 10 ★ 00001 ★ 00010 # → ★ # (00001 = Start User Address, 00010 = End User Address) Tokens 00001 - 00010 have been Suspended.
NOTICE
Refer to Table of Users for User details before deleting Tokens

Doorbell Function

2. Enabling Doorbell Function

To Enable Doorbell Function → 24 ★ 128 #

24*****DDD#

FUNCTION	OPTI	ON	VALUE					
	0	1						
Auto-Open Door Without Presenting Card at Auto Open Zone	Disable †	Enable	001	Networking/ Stand-Alone				
Alarm Output/Lift Control	Alarm Output †	Lift Control	002	Networking/ Stand-Alone				
Stop Alarm By	None †	Push Button/ Door Closed	064	Networking/ Stand-Alone				
Door Bell	Disable †	Enabled	128	Networking/ Stand-Alone				

† = Default Setting

Example

To enable Auto-Open Door , Alarm Output and Doorbell, add the values of these functions together:- Auto-Open Door = 001 Doorbell = 128

Doorbell	= 128
Total	= 129

Enter Programming Mode \rightarrow \star 123456 # \rightarrow 24 \star 129 # \rightarrow \star #

(129 is the sum of the required values for programming)

NOTICE

Refer to the charts on page 29 for full Programming Values.

WARNING

Enabling the Doorbell function will disable the Door Monitor Alarm function.

Alarm Functions
2. Enabling Alarm Output Function
To Enable Alarm Output → 24 ★ 000 #
3. Enabling Stop Alarm By
To Enable Stop Alarm By ➔ 24 ★ 064 #
4. Enabling Auto Relock
To Enable Auto Relock → 20 ★ 002 #
5. Enabling Force Open Alarm Output
To Enable Force Open Alarm Output ➔ 28 ★ 128 #
6. Changing Alarm Relay Time
To Change Alarm Relay Time ➔ 03 ★ 3-Digit Alarm Relay Time in Seconds #
7. Changing Alarm Delay Time
To Change Alarm Delay Time ➔ 06 ★ 3-Digit Alarm Delay Time in Seconds #
NOTICE
Refer to the charts on page 29 for full Programming Values.

Enabling Lift Control & Setting Relay Time										
1. Enabling Lift Control Function										
To Enable Lift Control Function $\Rightarrow 24 \pm 002 \#$										
2. Setting Relay Time										
To Set Relay Time → 23 ★ Node ID of	Lift C	ontroll	er ★ :	3-Digi	t Rela	ay Tin	ne in S	econ	ds #	
Optional Floor Access	s P	rogr	am	mi	ng					
3a. Single Floor Programming										
					abard	14 24	7 #			
To Program Single Floors $\Rightarrow 27 \times 0$ se	er Aad	iress 🛪	F 100	r Nun	nber	J1 - 32	2 #			
3b. Multiple Floor Programming										
To Program Multiple Floors \Rightarrow 21 \star U	ser A	ddress	* Lif	t Set	1-43	k 7-Di	git Flo	oor Nu	mber	#
F										
Examples										
4. Single Floor Programming										
Enter Programming Mode → 🔺 MASTER CODE # 🔶 27 ★ 00001 ★ 07 # 🔶 ★ #										
(00001 = User Address, 07 = Floor Number 01 - 32)										
User 00001 is programmed for access to floor 07										
5. Multiple Floor Programming										
Enter Programming Mode	FR CO	DF #	→ 21	* 00	001	* 3 *	0000	1111#	ŧ	
$(00001 = 1100r \text{ Address} \ 2 = Electro 25$	20.0	000011			Num	horo	00 05	<u></u>	<u> </u>	
(00001 – Oser Address, 3 – Floors 23 -	32 œ	00001		FIUUI	Num	Jers 2	20 - 20	070	• #	-
0000001 = Floors 1 9 17 & 25					Floo	r/Stop)			
00000010 = Floors 2, 10, 18 & 26	Set	F	F	F	F	F	F	F	F	
00000100 = Floors 3, 11, 19 & 27			-			•	•		•	
00001000 = Floors 4, 12, 20 & 28	0	8	7	6	5	4	3	2	1	
00010000 = Floors 5, 13, 21 & 29	1	16	15	14	13	12	11	10	9	
00100000 = Floors 6, 14, 22 & 30 0100000 = Floors 7, 15, 23 & 31	2	24	23	22	21	20	19	18	17	
10000000 = Floors 8, 16, 24 & 32	-		20			20				
	3	32	31	30	29	28	27	26	25	
NOTICE										
101102										
When Programming Floors, follo	ow th	e para	amet	ers	for e	ither	Sing	le Flo	oor o	r
Multiple Floors, <u>NOT</u> both.										
Refer to Chart 24 * DDD # on page 29 for all of the values needed for										



Auto-Open Zone Programming

1. Enable/Disable Auto-Open Zone

To Enable/Disable Auto-Open Zone \rightarrow 20 \star 004 # (Refer to Chart 20*DDD# below for additional function values)

2. Enable/Disable Auto-Open Zone without Presenting a Token

To Enable/Disable Auto-Open Zone without Presenting a Token \Rightarrow 24 \pm 001 # (Refer to Chart 24*DDD# on page 23 for additional function values)

3. Open Time Setup

To Set Auto-Open Zones → 08 ★ Auto-Open Zone ★ Start Time & End Time ★ Days # When Setting Days, 1 = Enable 0 = Disable)

20 ***** DDD

FUNCTION	OPTI	ON			
TONOTION	0	1	VALUE		
Time Attendance	Yes †	No	001	Networking	
Auto Relock	Disable †	Enable	002	Networking/ Stand-Alone	
Auto Open	Disable †	Enable	004	Networking/ Stand-Alone	
Exit by Push Button	Disable †	Enable	016	Networking/ Stand-Alone	
Master Reader of Network	Slave †	Master	032	Networking	
Access/Exit Reader	Exit †	Access	064	Networking	
Anti-Passback	Disable †	Enable	128	Networking	

Example

1. Enable/Disable Auto-Open Zone without Presenting a Token

Enter Programming Mode → ★ MASTER CODE # → 24 ★ 001 # →

08 ★ 1 ★ 08301000 ★ 0111110 # **→ ★** #

24 ***** 001 **#** = Auto-Open Zone enabled, refer to page 23 for details.

08 *... 1 = Second Auto-Open Zone enabled 08301000 = Auto-Open Time set from 0830 to 1000 0111110 = Mon - Fri set .

LIFT CONTROL AND ALARM PROGRAMMING CHARTS

20 ***** DDD # **OPTION** VALUE **APPLICATION FUNCTION** 0 1 **Time Attendance** Yes † No 001 Networking Networking/ Auto Relock Disable † Enable 002 Stand-Alone Networking/ Enable 004 Auto Open Disable † Stand-Alone Networking/ **Exit by Push Button** Disable † Enable 016 Stand-Alone **Master Reader of Network** Slave † Master 032 Networking Access/Exit Reader Exit † 064 Networking Access Anti-Passback Disable † Enable 128 Networking **†** = Default Setting 24 ***** DDD # **OPTION FUNCTION** VALUE **APPLICATION** 1 0 **Auto-Open Door Without** Networking/ 001 **Presenting Card at Auto Open** Disable † Enable Stand-Alone Zone Networking/ 002 **Alarm Output/Lift Control** Alarm Output † Lift Control Stand-Alone **Push Button/** Networking/ Stop Alarm By... None † 064 **Door Closed** Stand-Alone Networking/ **Door Bell** Disable † Enable 128 Stand-Alone **†** = Default Setting 28 ***** DDD # **OPTION FUNCTION** VALUE **APPLICATION** 0 1 Networking/ **Two Door Opening** Disable † Enable 064 Stand-Alone Networking/ Force Open Alarm Output Enable 128 Disable † Stand-Alone **†** = Default Setting



Connecting Directly to a PC						
1. Setting Node ID						
To Set Node ID → 00 ★ Keypad Node ID ★ Virtual 716E Node ID ★ Door Number #						
Example						
Enter Programming M	ode \rightarrow * MASTER CODE # \rightarrow 00 * 001 * 001 * 001 # \rightarrow * #					
Setting up the Keypad with 701 Server Software is performed as follows:- Right click on "My Computer" on the desktop, or click on "Start" then right click on "My Computer"						
Click on "Properties"	Open Explore Search Manage Map Network Drive Disconnect Network Drive Create Shortcut Delete Rename Properties					
Click on "Hardware" System Properties System Restore General Computer Name Hardware Advanced System:						
Click on "Device Mana	ger" System Properties					
	System Restore Automatic Updates Remote General Computer Name Hardware Advanced Device Manager The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device. Device Manager					
Click on "+" next to "P	orts (COM & LPT)" 💷 Device Manager					
	File Action View Help ← → Image: Constrained and the second					
"Prolific USB-to-Serial Will show the COM Poi is connected to.	Comm Port (COM?)" t the USB converter File Action View Help + + II 2 2 II 2 2 2 Bluetooth Serial Port (COM9) Communications Port (COM1) FCP Printer Dort (LPT1) Prolific USB-to-Serial Comm Port (COM2)					
Continued Over						



Connecting Directly to a PC Continued							
Select the following (see below):-							
Tick Keypad Node ID							
2 Select 721E							
3 Set LAN BASE to AR-7xx/8xxE							
4 Set Node Range to 000-007							
5 Click <u>Y</u> es							
Node Number for Polling							
	IP Address Port						
1 000 727/747H V3 2	DIP 0.0.0.0 0 AN BASE						
☑ 001 721E	□ IP 0.0.0.0 0 ³ AR-7xx/8xxE ▼						
□ 002 716Ev5	□ IP 0 . 0 . 0 . 0 0 Node Range						
003 881E/82×EV5/725EV2/883E 721E	🗖 IP 0.0.0.0 0 4 000-007 💌						
004 725H/321H/327H 3K							
	□ IP 0.0.0.0 0 5 ✓ Yes						
□ 006 821EF \v9 □ 007 Al-100	□ IP 0 . 0 . 0 . 0 0 4 Exit						
821EF V3							
Click on button 3, Line File Setting View Help Click on the box marked + Controller On/Off Line ROOT The Keypad will now be online, indicated by a white Y in a blue disc The Keypad is now online and ready to program.							
NOTICE							
Defende the 704 Olient and 704 Comien menuels for the stress in the							
information Refer to Additional Connection Diagram on page 19							
for details on connecting AR-485RFP RS485 repeaters if							
connecting more than 32 Networked Keynads							
connecting more than 52 Networken Reypaus.							

Networking Under an AR-716E
1. Setting Node ID
To Set Node ID → 00 ★ Node ID of Keypad #
Example
1. Setting Node ID
To Set Node ID → Enter Programming Mode → ★ MASTER CODE # → 00 ★ 001 # → ★ #
NOTICE
Refer to the AR-716E manual and 701 Client and 701 Server manuals for further programming information. Refer to Additional Connection Diagram on page 19 for details on connecting AR-485REP RS485 repeaters if connecting more than 32 Networked Keypads.

PROGRAMMING TABLE

Command List					
Function	Command				
Entering Programming Mode	* 123456 # or * Master Code # (If Already Changed)				
Exiting Programming Mode	*#	M4/6/8			
Exiting Programming Mode and Enabling Arming Status	* * #	M4/6/8			
Node ID Setting Connected to 716E For More Than 254 Units	00 ★ NNN # (NNN = Node ID: 001 – 254)	M4/8			
Node ID Setting Connected To PC For Up to 254 Units	00 * NNN * VVV * nnn # (NNN = Node ID of K50i, VVV = Virtual 716E Node ID, nnn = Door Number)	M4/8			
Lock Relay Time Setting	02 ★ TTT # (TTT = Lock Relay Time,000 = Toggle, 001 – 600 = 1 – 600 Sec, 601 – 609 = 0.1 – 0.9 Sec)	M4/6/8			
Arming Relay Time Setting	03 ★ TTT # (TTT = Door Relay Time, 000 = Toggle, 001 – 600 = 1 – 600 Sec)	M4/6/8			
Control Mode Setting	04 ★ N # (N = Mode 4/6/8)	M4/6/8			
Arming Delay Time Setting	05 ★ TTT # (TTT = Arming Delay Time, 001 – 600 = 1 – 600 Sec)	M4/6/8			
Alarm Delay Time Setting	06 ★ TTT # (TTT = Arming Delay Time, 001 – 600 = 1 – 600 Sec)	M4/6/8			
Auto-Open Zone Setting	08 ★ N ★ HHMMHHMM ★ 1111111 # (N = 2 Sets of Auto Open Zone, HHMMHHMM = Start Time to End Time, 1111111 = Days S/M/T/W/T/F/S - 0 = Disable, 1 = Enable)	M4/6/8			
Master Code Setting	09 ★ PPPPPRRRRRR # (PPPPPP = Master code, RRRRRR = Repeat Master Code)	M4/6/8			
Deleting Tokens/User Codes	10 * SSSSS * EEEEE # (SSSSS = Start Address, EEEEE = End Address)	M4/6/8			
Setting PWD/PIN	12 * UUUUU * PPPP # (UUUUU = User Address, PPPP = 4 – Digit User Code)	M4/6/8			
Arming Output Time Setting	14 * TTT # (TTT = Arming Output Time, 001 – 250 = 1 – 250 Sec)	M4/6/8			
Duress Code Setting (M4/M8) Common Code Setting (M6)	<pre>15 * PPPP # (PPPP = 4 Digit Duress Code) 15 * PPPP # (PPPP = 4 – Digit Common Code - Set to 0000 to disable)</pre>	M4/8 M6			
Door Close Time	18 ★ TTT # (TTT = Door Close Time, 001 – 600 = 1 – 600 Sec, Default = 15 Sec)	M4/6/8			
Adding Tokens	19 * UUUUU * QQQQQ # (UUUUU = User Address, QQQQQ = Token Quantity)	M4/6/8			
Factory Setting 1	20 ★ DDD # (DDD – Refer to Chart A 20*DDD# on Page 29 for Details)	M4/6/8			
Lift Control Setting: Multi Doors	21 * UUUUU * S * FFFFFFF # (UUUUU = User Address, S & F - Refer to Charts on Page 25 for Details)	M4/6/8			
Relay Time Of Lift Controller Setting	23 * NNN * TTT # (NNN = Node ID, TTT = Relay Time, 001 – 600 = 1 – 600 Sec)	M4/6/8			
Factory Setting 2	24 ★ DDD # (DDD – Refer to Chart B 24*DDD# on Page 29 for Details)	M4/6/8			
Real Time Clock Setting (Stand-Alone)	25 ★ YYMMDDHHmmss # (YYMMDDHHmmss = Year/Month/Day/Hour/ Minute/Second)	M4/6/8			
Anti-Passback (Enable User)	26 * SSSSS * EEEEE # (SSSSS = Start Address, EEEEE = End Address)	M4/6/8			
Lift Control Setting (Single Door)	27 * UUUUU * FF # (UUUUU = User Address, FF = Floor Number 01 – 32)	M4/6/8			
Force Open Alarm Setting	28 * NNN # (NNN – Refer to Chart C 28*NNN# on Page 29 For Details)	M4/6/8			
Delete All Users	29 * 29 * # followed by * #	M4/6/8			

TABLE OF USERS

Name of On-Site Programmer(s): _____ Installation Company:

DEFAULT MASTER CODE:- * 123456 #			Tel: Date:			
USER MASTER CODE:			Lock Time: Lock Type:			
User Address	Users Name	Ca	rd ID	User Code	Date	
			;			
		;				
			;			
			;			
		;				
			;			
		;				
		;				
			;			
		;				
			;			
			;			
			;			
			;			
			;			
			;			
			;			
			; •			
			; ·			
			,			
		,				
		, ,				
			,			
			;			
		;				
		;				
		;				
		;				
		;				
		;				
			;			
		;				
		;				
		;				
		;				
		;				
			;			
			;			
			;			
			;			
		;				
		;		+		
		· ·		+		
		, ,		+		
		, ,		+		
		, ,				
		, ,		1		
		, ,		1		
				1		

We recommend this page should be filled in and regularly updated and kept in a safe and secure location by the person responsible for the upkeep of the system.