



K50i Series

Technical Manual



K50F + K51S



K50F



K50P

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Version 1.01

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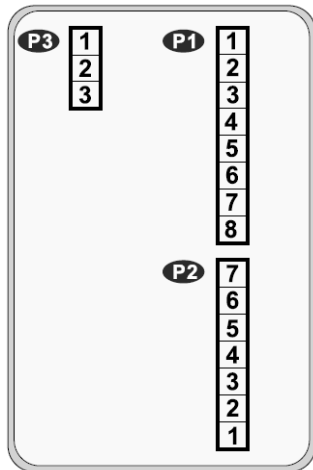
SYSTEM OVERVIEW

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 upto 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 upto 1200 Transactions
- Auto-Relock Function

CONNECTORS



P1 Table 1: Connector P1 colour coding.

Wire Application	Wire	Color	Description
Door Relay	1	Blue White	(N.O.)DC24V1Amp
	2	Purple White	(N.C.)DC24V1Amp
	3	White	(COM)DC24V1Amp
Door Sensor	4	Orange	Negative Trigger Input
Exit Switch	5	Purple	Negative Trigger Input
Alarm Output	6	Grey	Transistor Output (Open Collector Active Low)
Power	7	Thick Red	DC Power 12V
	8	Thick Black	DC Power 0V

P2 : Connector P2 colour coding.

Wire Application	Wire	Color	Description
Networking Module	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
Beeper	5	Pink	Beeper Output 5V/100mA, Low
LED	6	Brown	LED Green Output 5V/20mA, Max
	7	Yellow	LED Red Output 5V/20mA, Max

P3 Table 3: Tamper Switch Connector P3 colour coding.

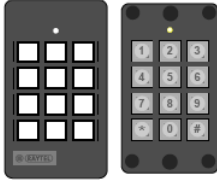
Wire Application	Wire	Color	Description
Tamper Switch	1	Red	N.C.
	2	Orange	COM
	3	Yellow	N.O.

Contact Rating : 1A 125VAC/24VDC

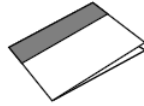
BOX CONTENTS & INSTALLATION

K50P

A - K50i + Cover K51P



B - Instruction Guide



C - Terminal Cables



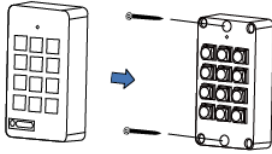
D - Allen Key and Screws



E - EVA foam gasket



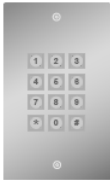
Option 1 (K50P=K50i+K51P)



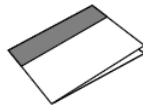
- Connect wires.
- Plug connectors into keypad/controller.
- Using a screwdriver, screw the keypad to the wall using the screws and wall plugs provided.
- Fit the cover over the keypad.
- Apply power. Green and Red LED's should illuminate and the keypad should beep.
- Commence programming as required.

K50F

A - K50F



B - Instruction Guide



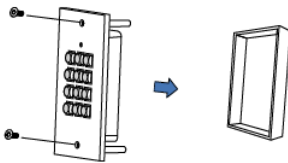
C - Terminal Cables



D - Allen Key and Screws



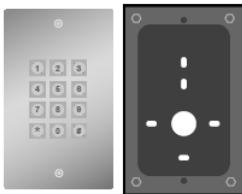
Option 2 (K50F + FB146)



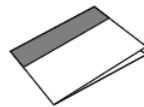
- Fit back box (FB146 supplied separately) flush in the wall.
- Connect wires.
- Plug connectors into keypad/controller.
- Screw the faceplate/keypad to the back box using the screws (supplied)
- Apply power. Green and Red LED's should illuminate and the keypad should beep.
- Commence programming as required.

K50CS

A - K50F+K51S



B - Instruction Guide



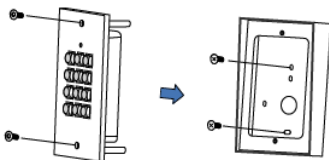
C - Terminal Cables



D - Allen Key and Screws



Option 3 (K50CS=K50F+K51S)



- Screw the K51S to the surface of the wall using the screws and plugs provided.
- The rest is same as K50F

Notice

■ Conduit

The communication wires and power line should not be housed in the same electrical conduit. They should always be installed in separate conduit.

RESTORING DEFAULT SETTINGS

Entering and Exiting Programming Mode

Entering	Exiting
*123456# or *Master Code# (If already changed)	* #

Initial Setup

1. Restoring Factory Settings

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 20*000# → 15*0000# → 24*000# → 26*00000*01023*2#
 → 28*000# → 29*29*# → *#

2. Changing The Master Code

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 09*PPPPPRRRRR# (Input the New 6 digit Master Code twice) → *#

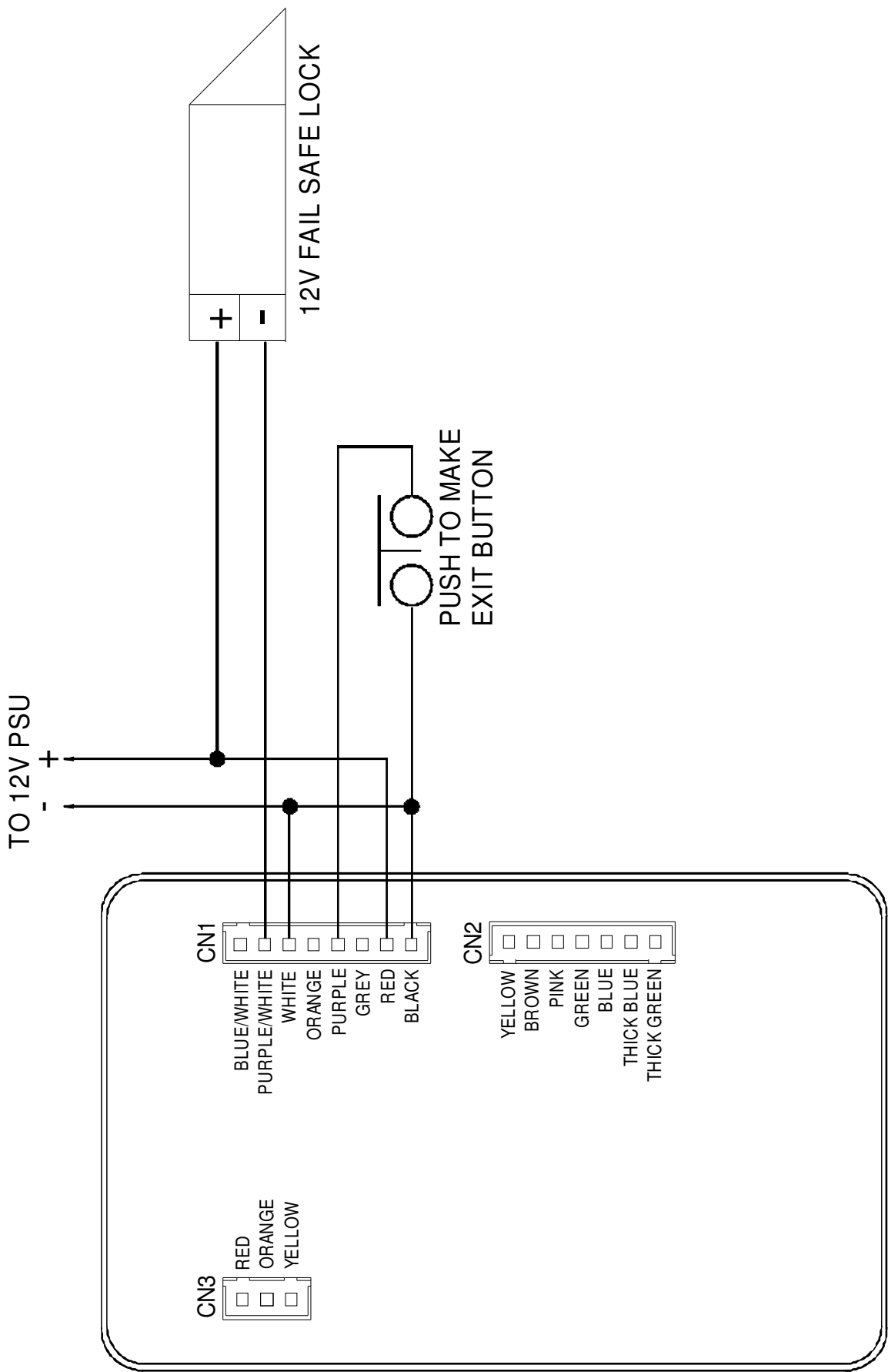
3. Changing The Control Mode

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 04*N# (N = Input Mode No: 4/6/8) → *#

Mode Application	M4	M6	M8
Support	Stand-Alone Networking	Stand-Alone	Stand-Alone Networking
Code Capacity	1024	1	1024
Access Mode	Press 9-digit PIN = 5-digit user address + 4-digit individual pass code	Press 4-digit common code	Press 4-digit individual pass code
Event Capacity	1200	X	1200
120 Holidays	V	X	V
Duress	V	X	V
Time Zone	11	X	11
Lift Control	32	X	32
Anti-pass-back	V	X	V

Notice

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



Please note that all drawings and diagrams supplied for bespoke applications for RSS products are given as a free service to assist customers and no liability for errors and omissions can be accepted by RSS. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	TITLE	DRAWN	CHECKED	APPROVED	DATE
1	INITIAL	11 - 02 - 08	K50i basic connection diagram with fail safe lock	MH	JJT	JJT	11 - 02 - 08
				DRAWING No. RSS2000/79			

FAIL SAFE LOCK WIRING AND PROGRAMMING

Initial Setup

1. Changing The Master Code

Enter Programming Mode → or (If already changed)
→ (Input the New 6 digit Master Code twice) →

2. Changing The Control Mode

Enter Programming Mode → or (If already changed)
→ → (This will change Control Mode to Mode 8)

3. Adding User Codes

Enter Programming Mode → or (If already changed)
→ (Input the User Address and User Code - UUUUU= 5 digit
User address & PPPP= 4 digit User code) →

4. Changing the Lock Time

Enter Programming Mode → or (If already changed)
→ (Input Lock Time - TTT= 3 digit time in seconds) →

5. Enabling Exit Function

Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

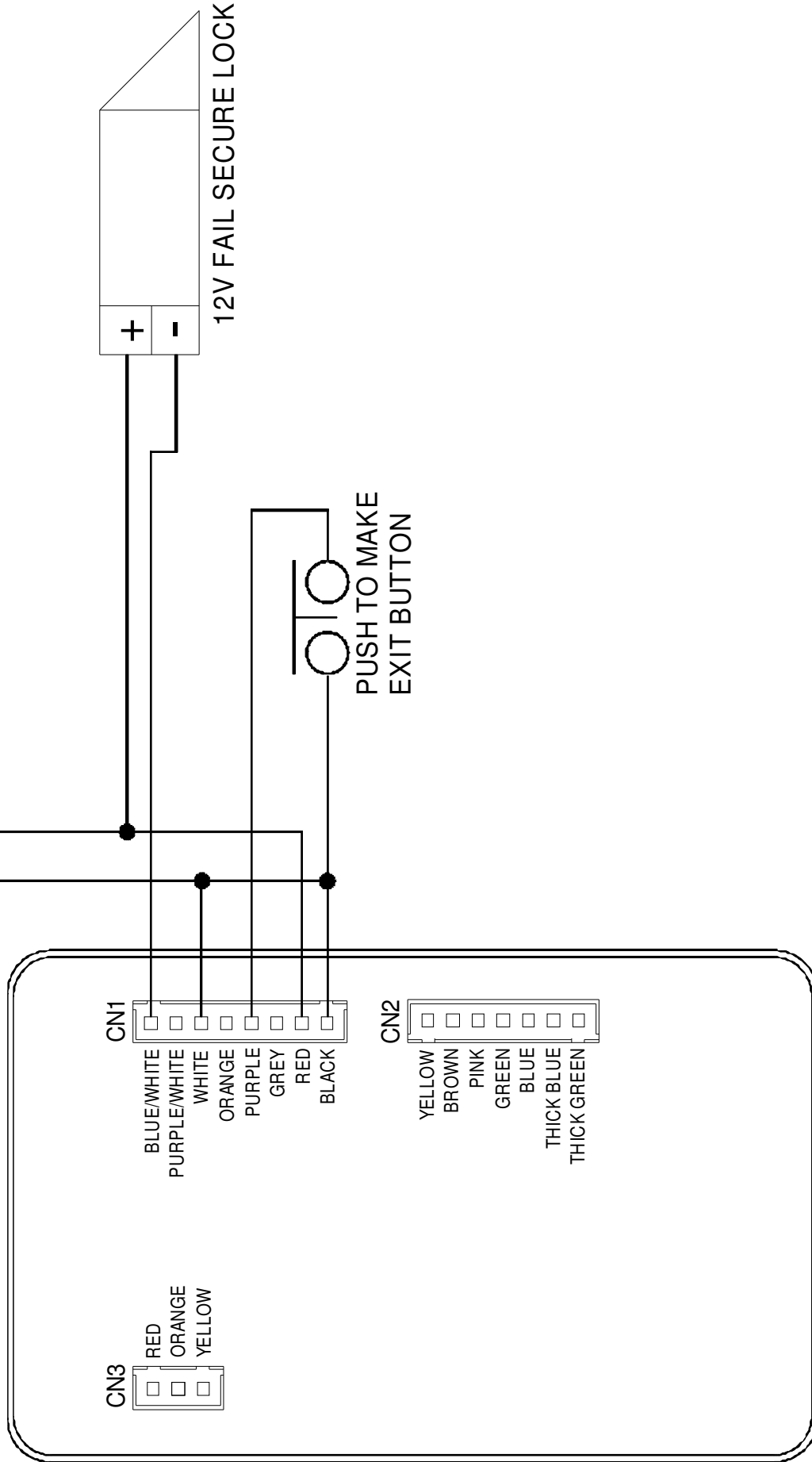
6. Deleting Codes

Enter Programming Mode → or (If already changed)
→ (Input the Start User Address and End User Address -
SSSSS = Start User Address, EEEEE = End User Address) →

Notice

Refer to Chart A 20*DDD# on page 32 for the values needed for programming the Exit Function.

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Please note that all drawings and diagrams supplied for bespoke applications for RSS products are given as a free service to assist customers and no liability for errors and omissions can be accepted by RSS. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	TITLE	DRAWN	CHECKED	APPROVED	DATE
1	INITIAL	11 - 02 - 08	K50i basic connection diagram with fail secure lock	MH	JJT	JJT	11 - 02 - 08
				DRAWING No. RSS2000/80			

FAIL SECURE LOCK WIRING AND PROGRAMMING

Initial Setup

1. Changing The Master Code

Enter Programming Mode → or (If already changed)
→ (Input the New 6 digit Master Code twice) →

2. Changing The Control Mode

Enter Programming Mode → or (If already changed)
→ → (This will change Control Mode to Mode 8)

3. Adding User Codes

Enter Programming Mode → or (If already changed)
→ (Input the User Address and User Code - UUUUU= 5 digit User address & PPPP= 4 digit User code) →

4. Changing the Lock Time

Enter Programming Mode → or (If already changed)
→ (Input Lock Time - TTT= 3 digit time in seconds) →

5. Enabling Exit Function

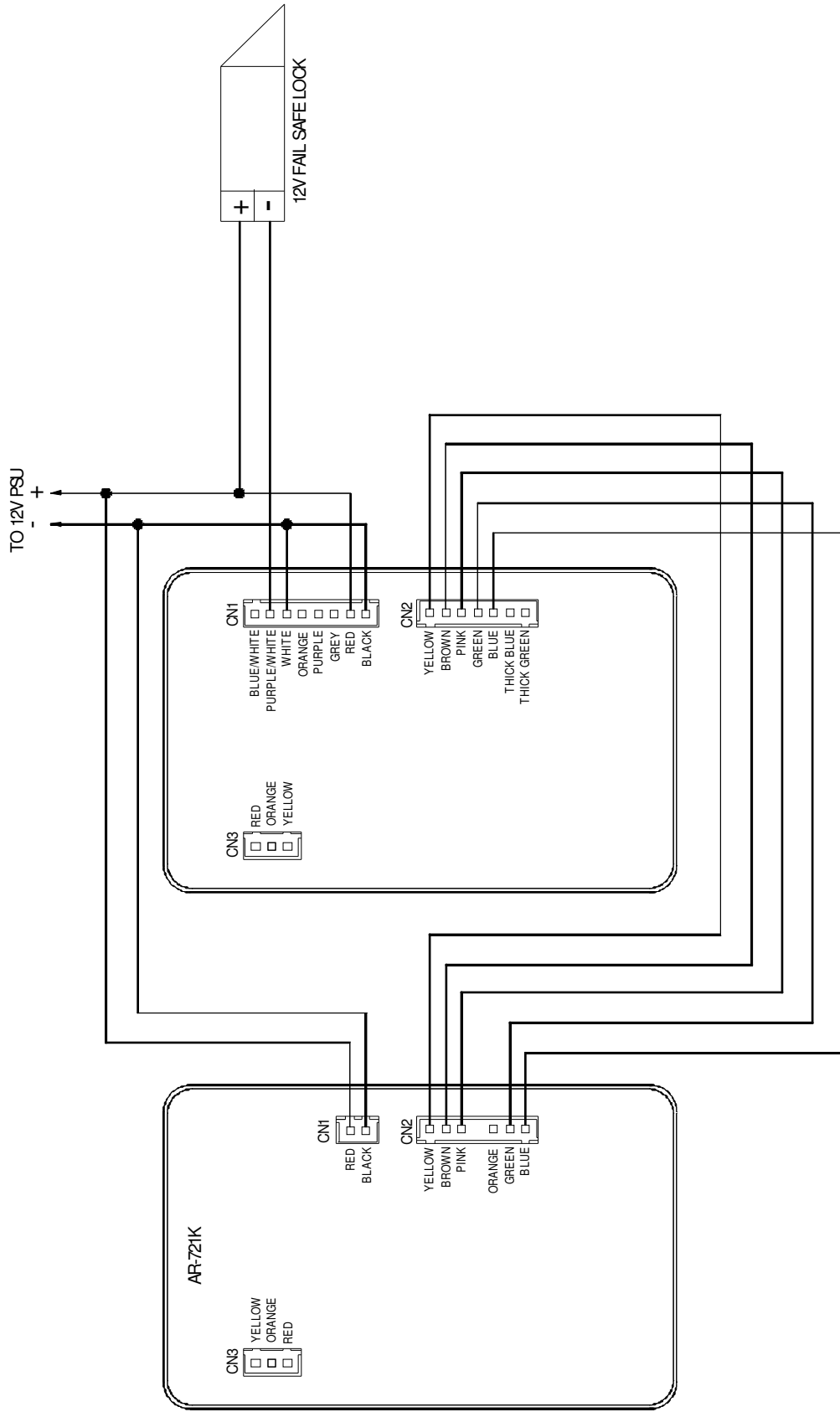
Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

6. Deleting Codes

Enter Programming Mode → or (If already changed)
→ (Input the Start User Address and End User Address - SSSSS = Start User Address, EEEEE = End User Address) →

Notice

Refer to Chart A 20*DDD# on page 32 for the values needed for programming the Exit Function.



Please note that all drawings and diagrams supplied for bespoke applications for RSS products are given as a free service to assist customers and no liability for errors and omissions can be accepted by RSS. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	APPROVED	DATE
	INITIAL	11 - 02 - 08	JJT	11 - 02 - 08
THE RAYTEL GROUP LTD		TITLE	CHECKED	APPROVED
		K50i connection diagram with keypad in/out and fail safe lock	JJT	JJT
		DRAWING No.	RSS2000/81	

FAIL SAFE LOCK WIRING/PROGRAMMING WITH KEYPAD IN/OUT

Initial Setup

1. Changing The Master Code

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 09*PPPPPRRRRR# (Input the New 6 digit Master Code twice) → *#

2. Changing The Control Mode

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 04*4# → *# (This will change Control Mode to Mode 4)

3. Adding User Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 12*UUUUU*PPPP# (Input the User Address and User Code - UUUUU= 5 digit User address & PPPP= 4 digit User code) → *#

4. Changing the Lock Time

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 02*TTT# (Input Lock Time - TTT= 3 digit time in seconds) → *#

5. Anti-Passback Setup (Optional)

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 20*128# (Refer to Chart A 20*DDD# on Page 32 for Details) → *#

6. Enable User For Anti-Passback (Optional)

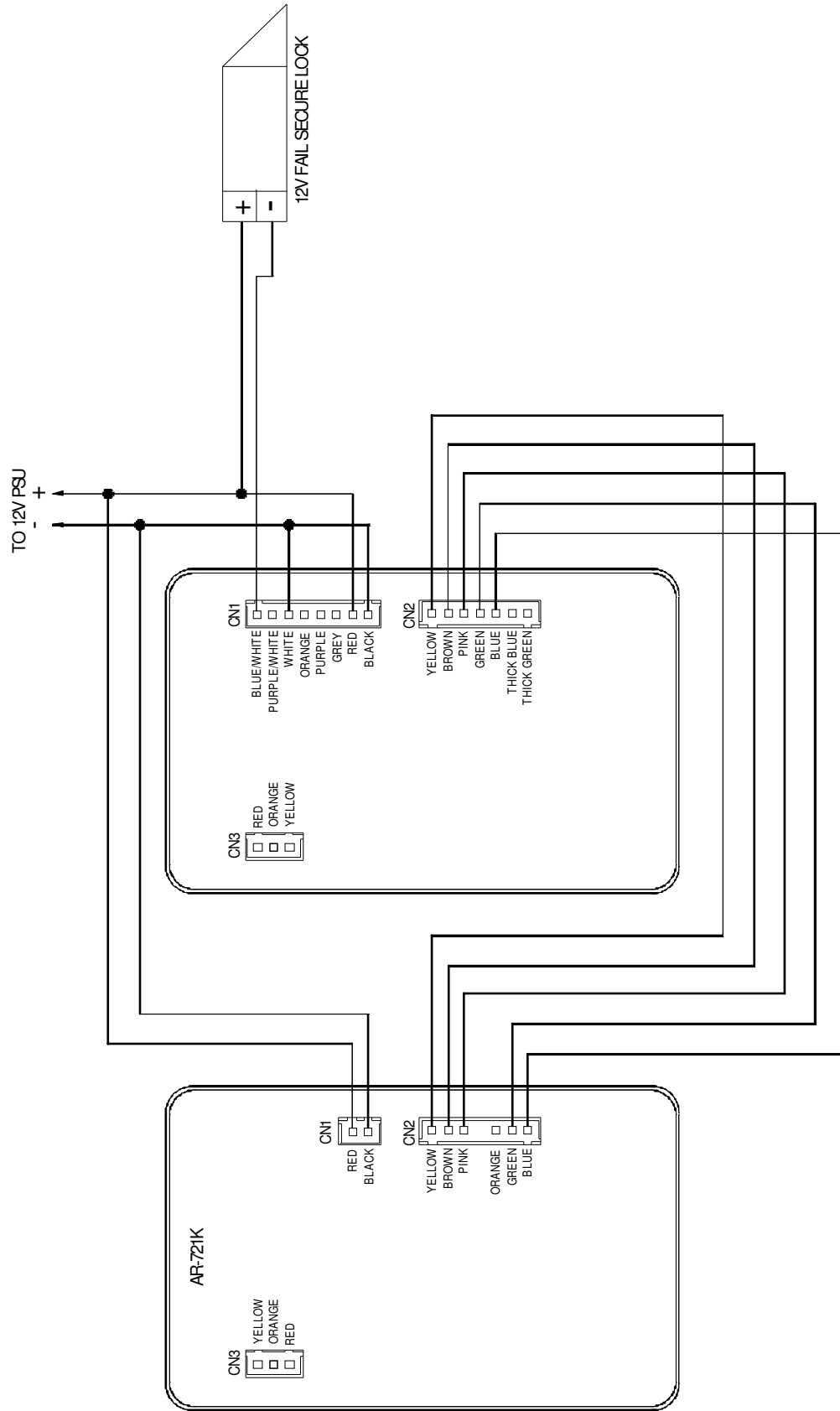
Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 26*SSSS*EEEE*N# (SSSS = Start User Address - EEEEE = End User Address
N - 0 = Enable, 1 = Disable) → *#

7. Deleting Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 10*SSSS9EEEE# (Input the Start User Address and End User Address -
SSSS = Start User Address, EEEEE = End User Address) → *#

Notice

The Keypad needs to be in Mode 4 for Keypad In/Out operation.



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ISS	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED	DATE
	INITIAL	INITIAL				
1		11 - 02 - 08	MH	JJT	JJT	11 - 02 - 08
THE RAYTEL GROUP LTD			DRAWING No. RSS2000/82			
TITLE			K50i connection diagram with keypad in/out and fail secure lock			

FAIL SECURE LOCK WIRING/ PROGRAMMING WITH KEYPAD IN/OUT

Initial Setup

1. Changing The Master Code

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 09*PPPPPRRRRR# (Input the New 6 digit Master Code twice) → *#

2. Changing The Control Mode

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 04*4# → *# (This will change Control Mode to Mode 4)

3. Adding User Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 12*UUUUU*PPPP# (Input the User Address and User Code - UUUUU= 5 digit
User address & PPPP= 4 digit User code) → *#

4. Changing the Lock Time

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 02*TTT# (Input Lock Time - TTT= 3 digit time in seconds) → *#

5. Anti-Passback Setup (Optional)

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 20*128# (Refer to Chart A 20*DDD# on Page 32 for Details) → *#

6. Enable User For Anti-Passback (Optional)

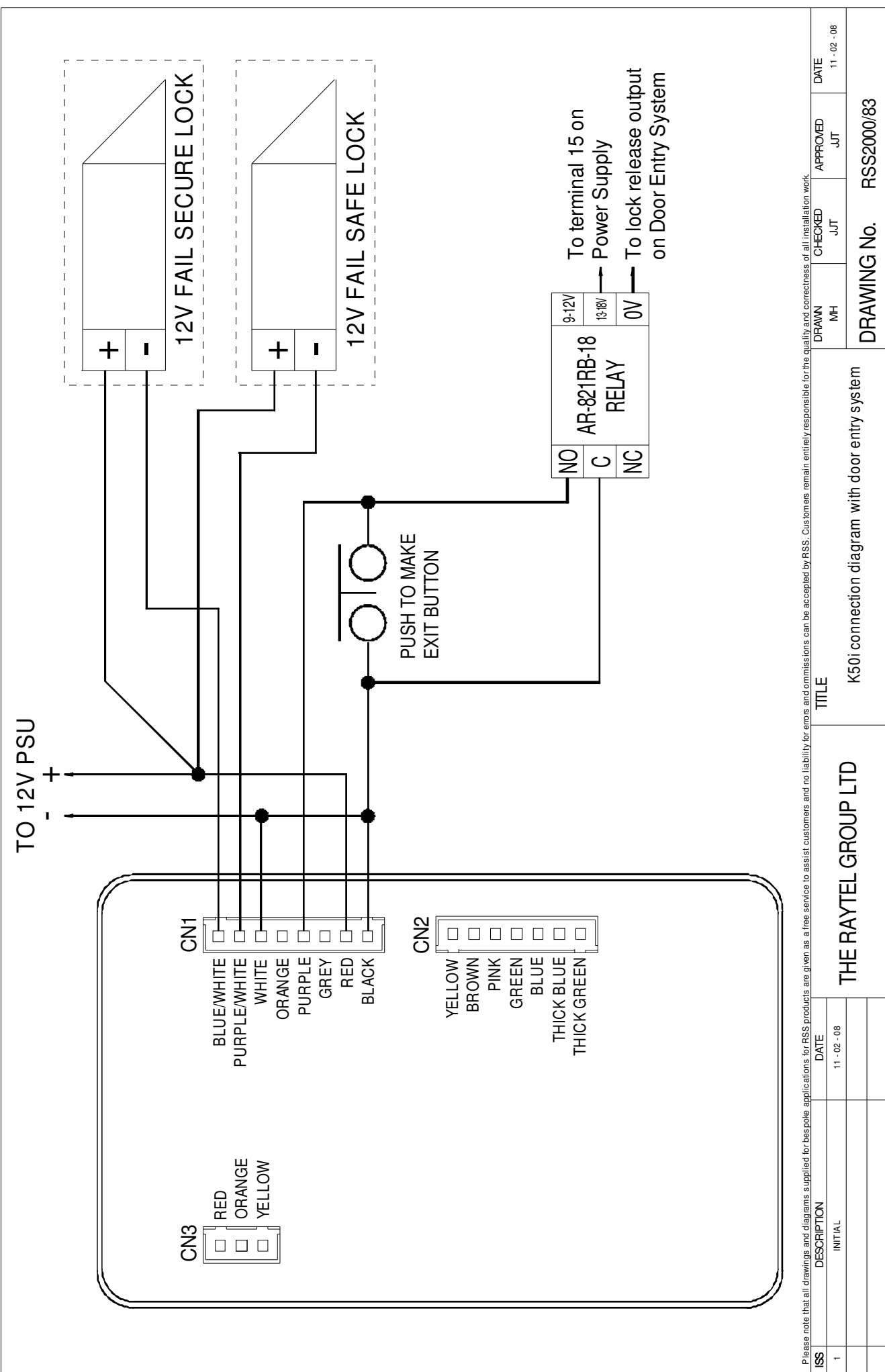
Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 26*SSSS*EEEE*N# (SSSS = Start User Address - EEEEE = End User Address
N - 0 = Enable, 1 = Disable) → *#

7. Deleting Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 10*SSSS9EEEE# (Input the Start User Address and End User Address -
SSSS = Start User Address, EEEEE = End User Address) → *#

Notice

The Keypad needs to be in Mode 4 for Keypad In/Out operation.



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ISS	DESCRIPTION	DATE	APPROVED	DATE
1	INITIAL	11 - 02 - 08	JJT	11 - 02 - 08
THE RAYTEL GROUP LTD		TITLE		
K501 connection diagram with door entry system		DRAWN		
		CHECKED		
		APPROVED		
		DATE		
DRAWING No. RSS2000/83				

WIRING AND PROGRAMMING WITH DOOR ENTRY SYSTEMS

Initial Setup

1. Changing The Master Code

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 09*PPPPPRRRRRR# (Input the New 6 digit Master Code twice) → *#

2. Changing The Control Mode

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 04*8# → *# (This will change Control Mode to Mode 8)

3. Adding User Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 12*UUUUU*PPPP# (Input the User Address and User Code - UUUUU= 5 digit
User address & PPPP= 4 digit User code) → *#

4. Changing the Lock Time

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 02*TTT# (Input Lock Time - TTT= 3 digit time in seconds) → *#

5. Enabling Exit Function

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 20*DDD# (DDD is the sum of the required values for programming) → *#

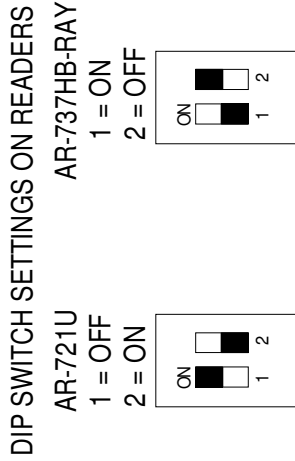
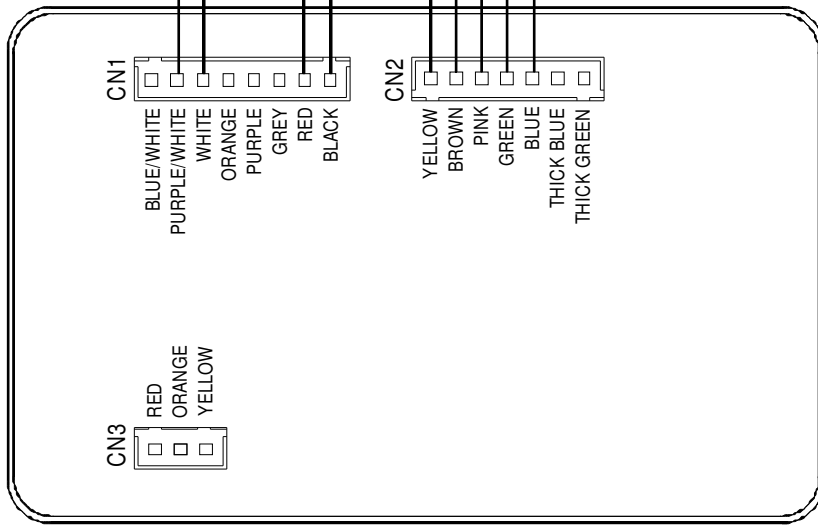
6. Deleting Codes

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
→ 10*SSSSS9EEEE# (Input the Start User Address and End User Address -
SSSSS = Start User Address, EEEEE = End User Address) → *#

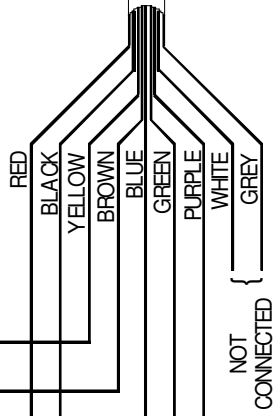
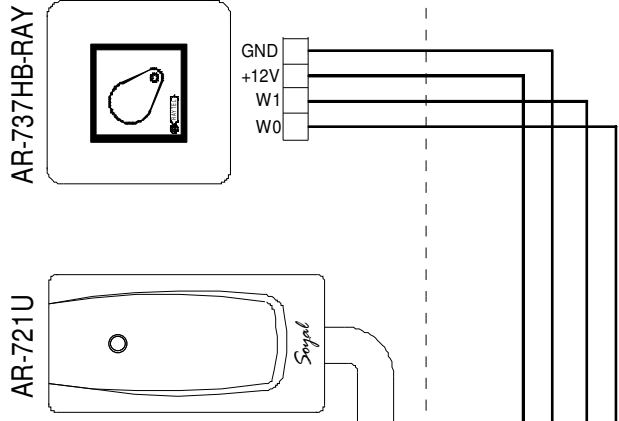
Notice

Refer to Chart A 20*DDD# on page 32 for the values needed for programming the Exit Function.

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OPTIONAL READERS



Please note that all drawings and diagrams supplied for bespoke applications for FSS products are given as a free service to assist customers and no liability for errors and omissions can be accepted by FSS. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	TITLE	DRAWN		CHECKED	APPROVED	DATE
	INITIAL	11 - 02 - 08	K50i basic connection diagram with fail safe lock and prox reader	MH	JJT	JJT	JJT	11 - 02 - 08
2	Add AR-737HB-RAY Reader	25 - 07 - 08						
DRAWING No.								RSS2000/84

SINGLE DOOR PROXIMITY WITH FAIL SAFE LOCK WIRING AND PROGRAMMING

Initial Setup

1. Adding a Single/Multiple Non Sequential Random Token

Enter Programming Mode → or (If already changed)

→ (Input the User Address and Quantity - UUUUU= 5 digit

User address & 00001 = Token Quantity) Present Token(s) to Reader →

When adding multiple tokens the User Address will automatically increase with each Token.

2. Adding Multiple Sequential Tokens

Enter Programming Mode → or (If already changed)

→ (Input the User Address and Quantity - UUUUU= 5 digit User

Address & QQQQQ = Token Quantity) Present Lowest numbered Token to Reader →

3. Deleting Tokens

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

SSSSS = Start User Address, EEEEE = End User Address) →

Example

Deleting a Single Token

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

00001 = Start User Address, 00001 = End User Address) →

Token 00001 has been Deleted.

Deleting Multiple Tokens

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

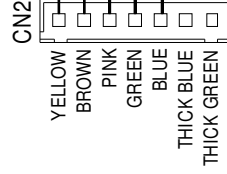
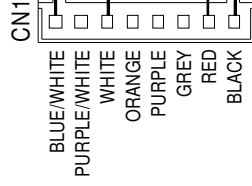
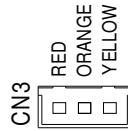
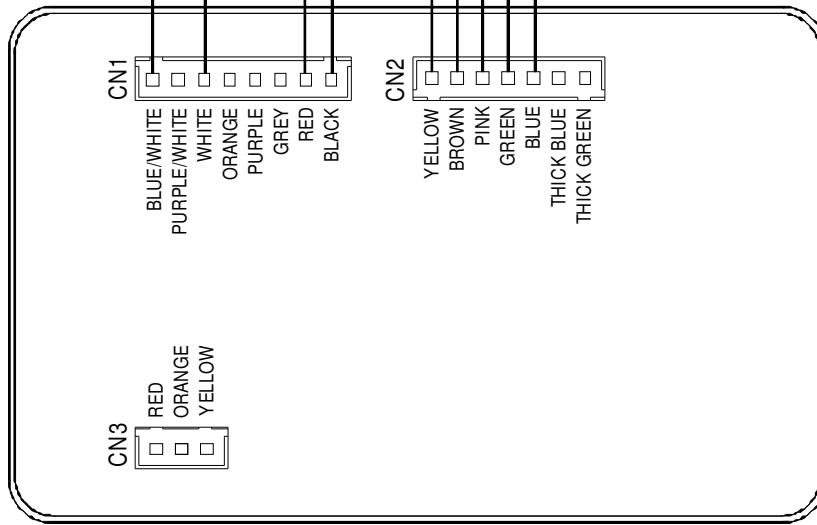
00001 = Start User Address, 00010 = End User Address) →

Tokens 00001 - 00010 have been Deleted.

Notice

Refer to Table of Users for User details before deleting Tokens.

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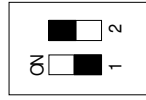
DIP SWITCH SETTINGS ON READERS
AR-721U
1 = OFF
2 = ON



AR-721U

1 = OFF
2 = ON

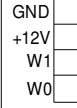
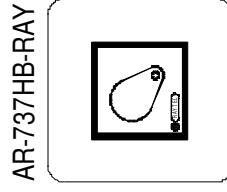
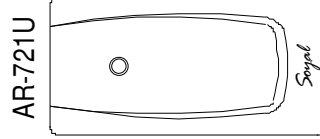
DIP SWITCH SETTINGS ON READERS
AR-737HB-RAY
1 = ON
2 = OFF



AR-737HB-RAY

1 = ON
2 = OFF

OPTIONAL READERS



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ISS	DESCRIPTION	INITIAL	DATE	DRAWN	CHECKED	APPROVED	DATE
1			11 - 02 - 08	MH	JJT	JJT	11 - 02 - 08
2	Add A R737HB-RAY Reader		25 - 07 - 08				

TITLE
K50i basic connection diagram with fail secure lock and prox reader

DRAWING No. RSS2000/85

THE RAYTEL GROUP LTD

SINGLE DOOR PROXIMITY WITH FAIL SECURE LOCK WIRING AND PROGRAMMING

Initial Setup

1. Adding a Single/Multiple Non Sequential Random Token

Enter Programming Mode → or (If already changed)

→ (Input the User Address and Quantity - UUUUU= 5 digit

User address & 00001 = Token Quantity) Present Token(s) to Reader →

When adding multiple tokens the User Address will automatically increase with each Token.

2. Adding Multiple Sequential Tokens

Enter Programming Mode → or (If already changed)

→ (Input the User Address and Quantity - UUUUU= 5 digit User

Address & QQQQQ = Token Quantity) Present Lowest numbered Token to Reader →

3. Deleting Tokens

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

SSSSS = Start User Address, EEEEE = End User Address) →

Example

4. Deleting a Single Token

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

00001 = Start User Address, 00001 = End User Address) →

Token 00001 has been Deleted.

5. Deleting Multiple Tokens

Enter Programming Mode → or (If already changed)

→ (Input the Start User Address and End User Address -

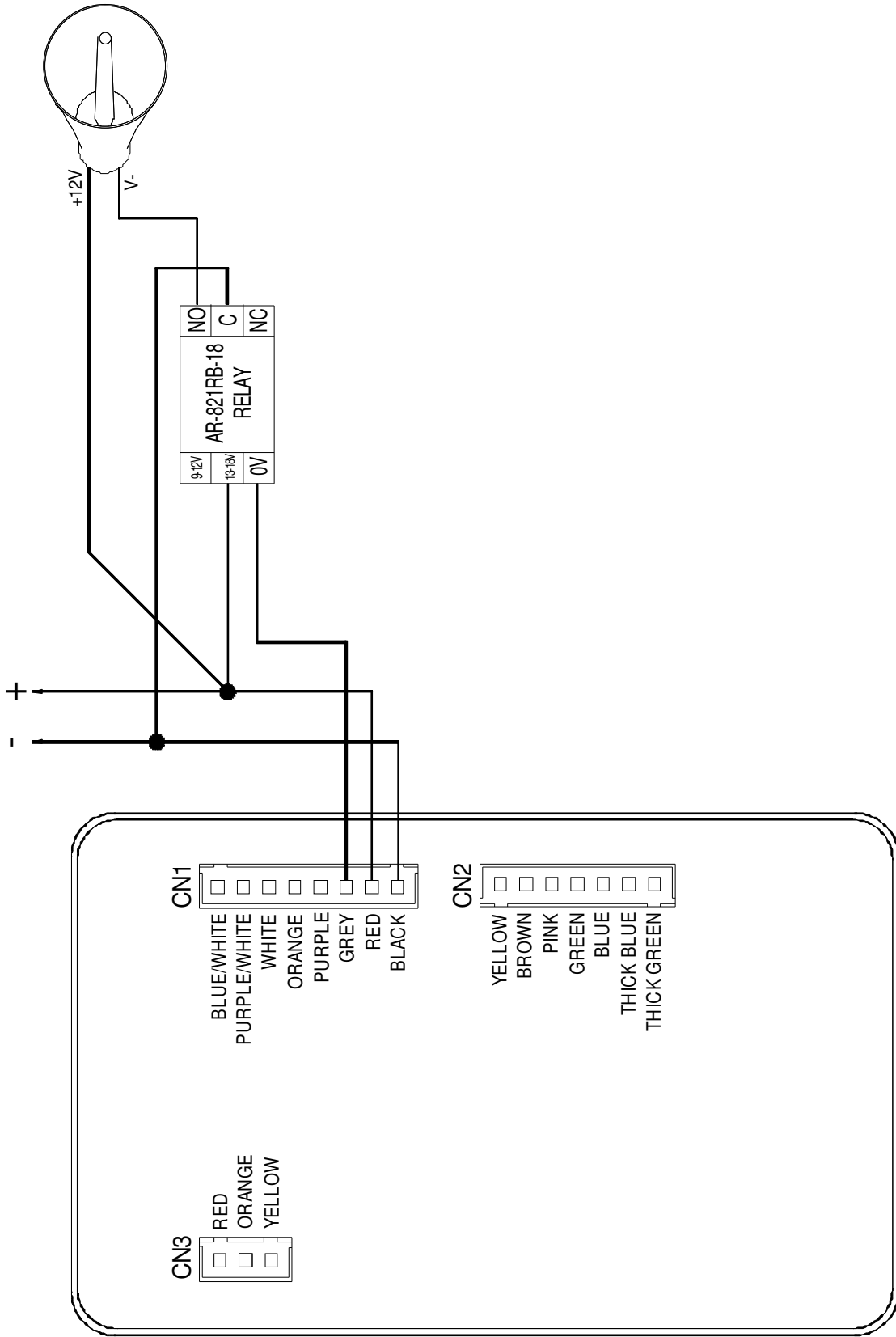
00001 = Start User Address, 00010 = End User Address) →

Tokens 00001 - 00010 have been Deleted.

Notice

Refer to Table of Users for User details before deleting Tokens.

TO 12V PSU



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ISS	DESCRIPTION	DATE	INITIAL	APPROVED	CHECKED	DATE
1		11-02-08		JT	JT	11-02-08
THE RAYTEL GROUP LTD				TITLE		
K50i connection diagram for doorbell function				DRAWING No. RSS2000/103		

DOORBELL FUNCTION WIRING AND PROGRAMMING

Initial Setup

1. Changing The Master Code

Enter Programming Mode → or (If already changed)
 → (Input the New 6 digit Master Code twice) →

2. Enabling Doorbell Function

Enter Programming Mode → or (If already changed)
 → (DDD is the sum of the required values for programming) →

24*DDD#

Function	Option		Value	Application
	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*	Enable	128	Networking / Stand-Alone

* = Default Setting

Example

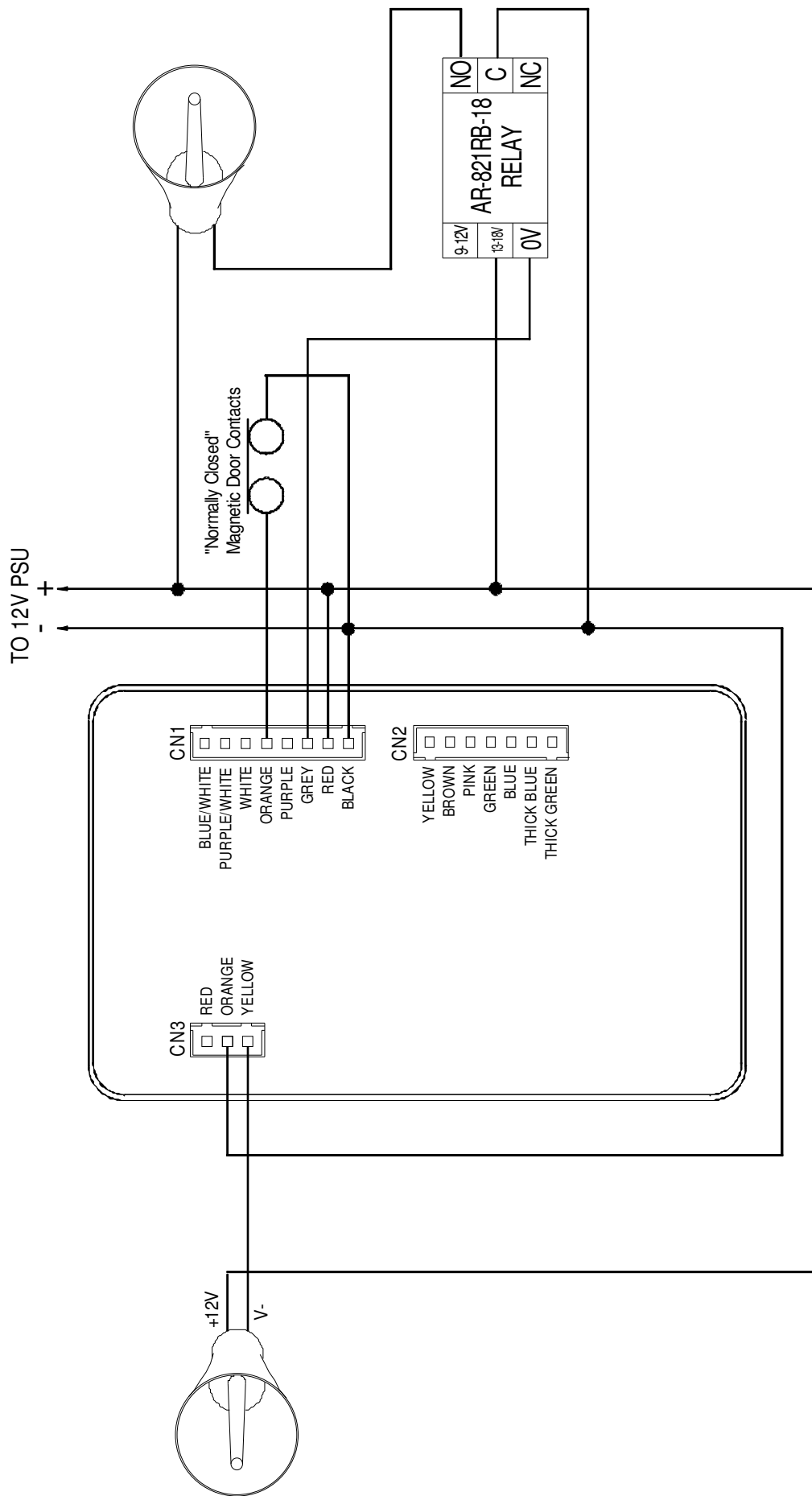
To enable Auto-Open Door , Alarm Output and Doorbell, add the values of these functions together:-

Auto-Open Door	=	001
Doorbell	=	128
Total	=	129

Enter Programming Mode → or (If already changed)
 → → (129 is the sum of the required values for programming)

Notice

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



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ISS	DESCRIPTION	INITIAL	DATE	TITLE	THE RAYTEL GROUP LTD	APPROVED	CHECKED	DATE
1			11 - 02 - 08	K50i connection diagram for alarm, tamper and door contacts		JJT	JJT	11 - 02 - 08
						DRAWING No. RSS2000/86		

ALARM, TAMPER AND DOOR CONTACT WIRING AND PROGRAMMING

Initial Setup

1. Changing The Master Code

Enter Programming Mode → or (If already changed)
→ (Input the New 6 digit Master Code twice) →

2. Enabling Alarm Output Function

Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

3. Enabling Stop Alarm By...

Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

4. Enabling Auto Relock

Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

5. Enabling Force Open Alarm Output

Enter Programming Mode → or (If already changed)
→ (DDD is the sum of the required values for programming) →

6. Changing Alarm Relay Time

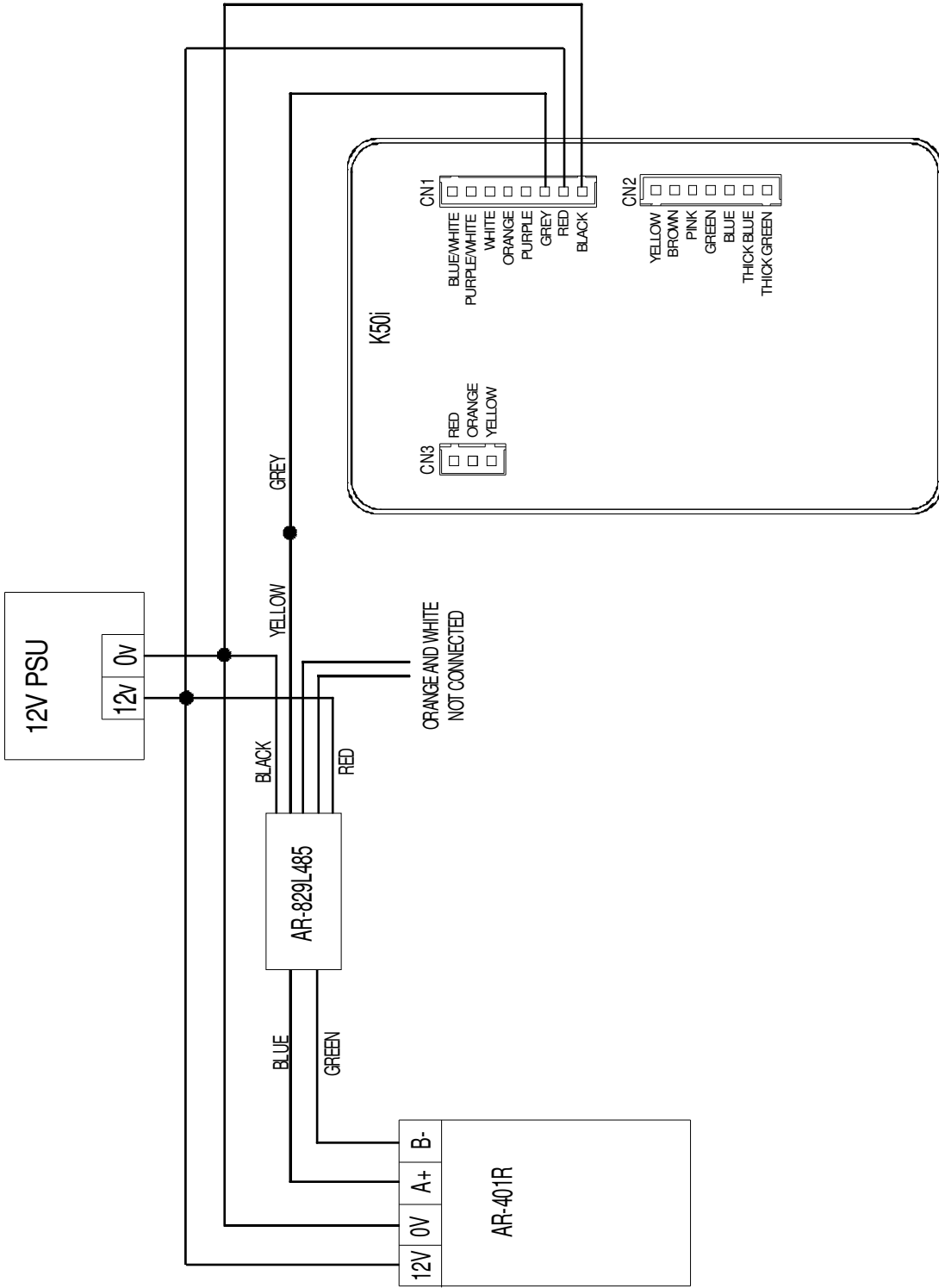
Enter Programming Mode → or (If already changed)
→ (TTT = Relay Time in seconds, 000 = Toggle, 001 - 600 = 1 - 600 Sec)
→

7. Changing Alarm Delay Time

Enter Programming Mode → or (If already changed)
→ (TTT = Relay Time in seconds, 001 - 600 = 1 - 600 Sec) →

Notice

Refer to the charts on page 32 for full Programming Values.



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ISS	DESCRIPTION	TITLE	APPROVED		DATE
	INITIAL		DRAWN	CHECKED	11 - 02 - 08
1		THE RAYTEL GROUP LTD	MH		
		K50i Connection diagram for lift control			
					DRAWING No. RSS2000/90

LIFT CONTROL WIRING AND PROGRAMMING

Initial Setup

1. Enabling Lift Control Function

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 24*DDD# → *# (DDD is the sum of the required values for programming)

2. Setting Relay Time

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 24*NNN*TTT# → *# (NNN is the Node ID of Lift Controller, TTT = Time in Seconds, 001 - 600 = 1 - 600 Seconds)

Notice

Refer to Chart B 24*DDD# on page 32 for the values needed for programming and ensure ALL Users have been added.

Programming

2. Single Floor Programming

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 27*UUUUU*FF# (UUUUU = User Address, FF = Floor Number 01 - 32) → *#

3. Multiple Floor Programming

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 21*UUUUU*S*FFFFFFF# (UUUUU = User Address, S = 4 Sets of Lift Control & FFFFFFFF = Floor Number 01 - 32) → *#

Example

4. Single Floor Programming

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 27*00001*07# (00001 = User Address, 07 = Floor Number 01 - 32) → *#

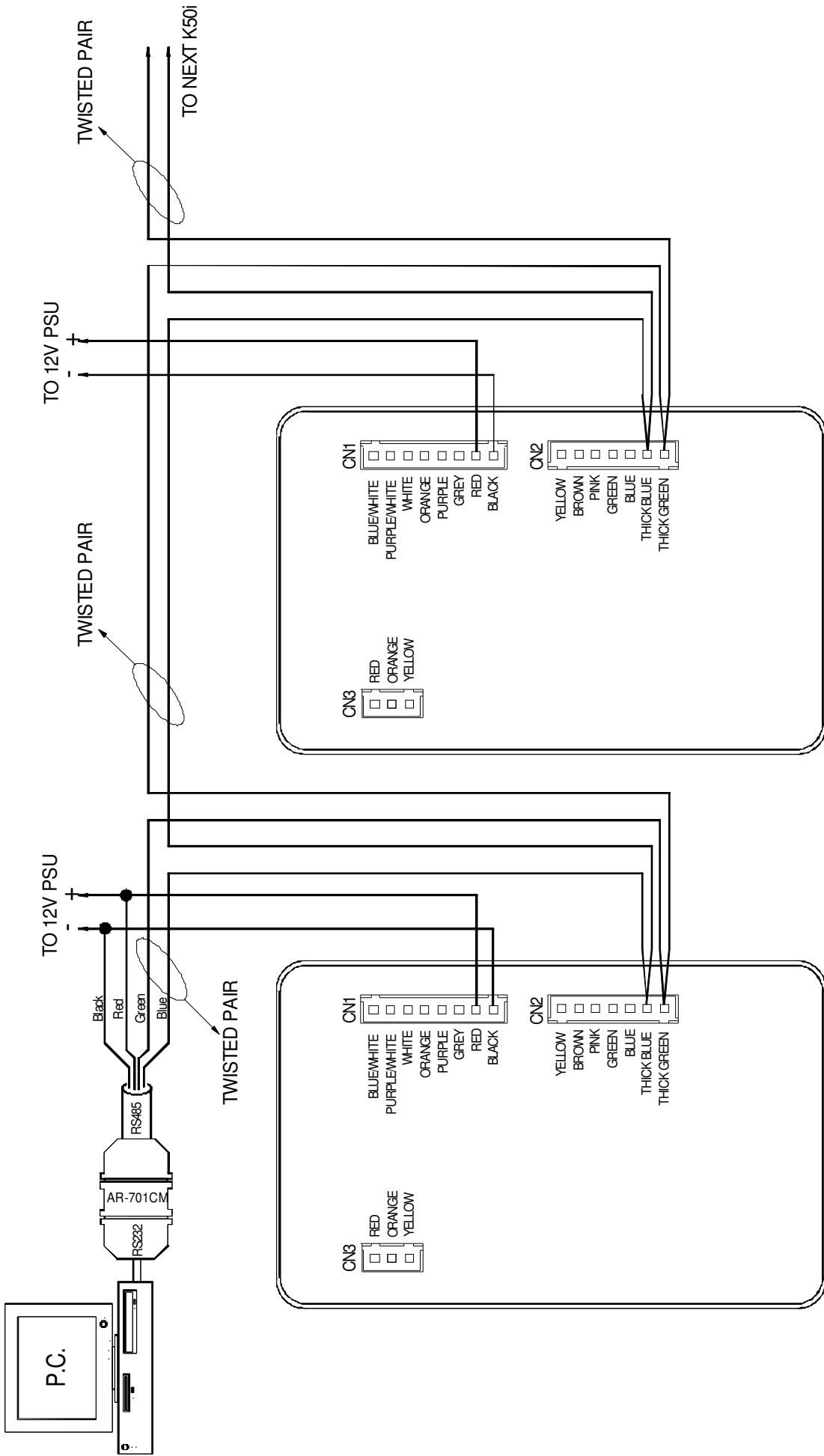
User 00001 is programmed for access to floor 07

5. Multiple Floor Programming

Enter Programming Mode → *123456# or *MASTER CODE# (If already changed)
 → 21*00001*3*00001111# (00001 = User Address, 3 = Floors 25 - 32 & 00001111 = Floor Numbers 25 - 28) → *#

00000001 = Floors 1, 9, 17 & 25
 00000010 = Floors 2, 10, 18 & 26
 00000100 = Floors 3, 11, 19 & 27
 00001000 = Floors 4, 12, 20 & 28
 00010000 = Floors 5, 13, 21 & 29
 00100000 = Floors 6, 14, 22 & 30
 01000000 = Floors 7, 15, 23 & 31
 10000000 = Floors 8, 16, 24 & 32

Set	Floor/Stop							
	F	F	F	F	F	F	F	F
0	8	7	6	5	4	3	2	1
1	16	15	14	13	12	11	10	9
2	24	23	22	21	20	19	18	17
3	32	31	30	29	28	27	26	25



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ISS	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED	DATE
1	INITIAL	11 - 02 - 08	MH	JJT	JJT	11 - 02 - 08
TITLE			DRAWING No. RSS2000/87			
THE RAYTEL GROUP LTD			K50i connection diagram for up to 254 keypads direct to PC			

NETWORKING UPTO 254 KEYPADS DIRECT TO PC

Initial Setup

1. Setting Node ID

Enter Programming Mode → or (If already changed)

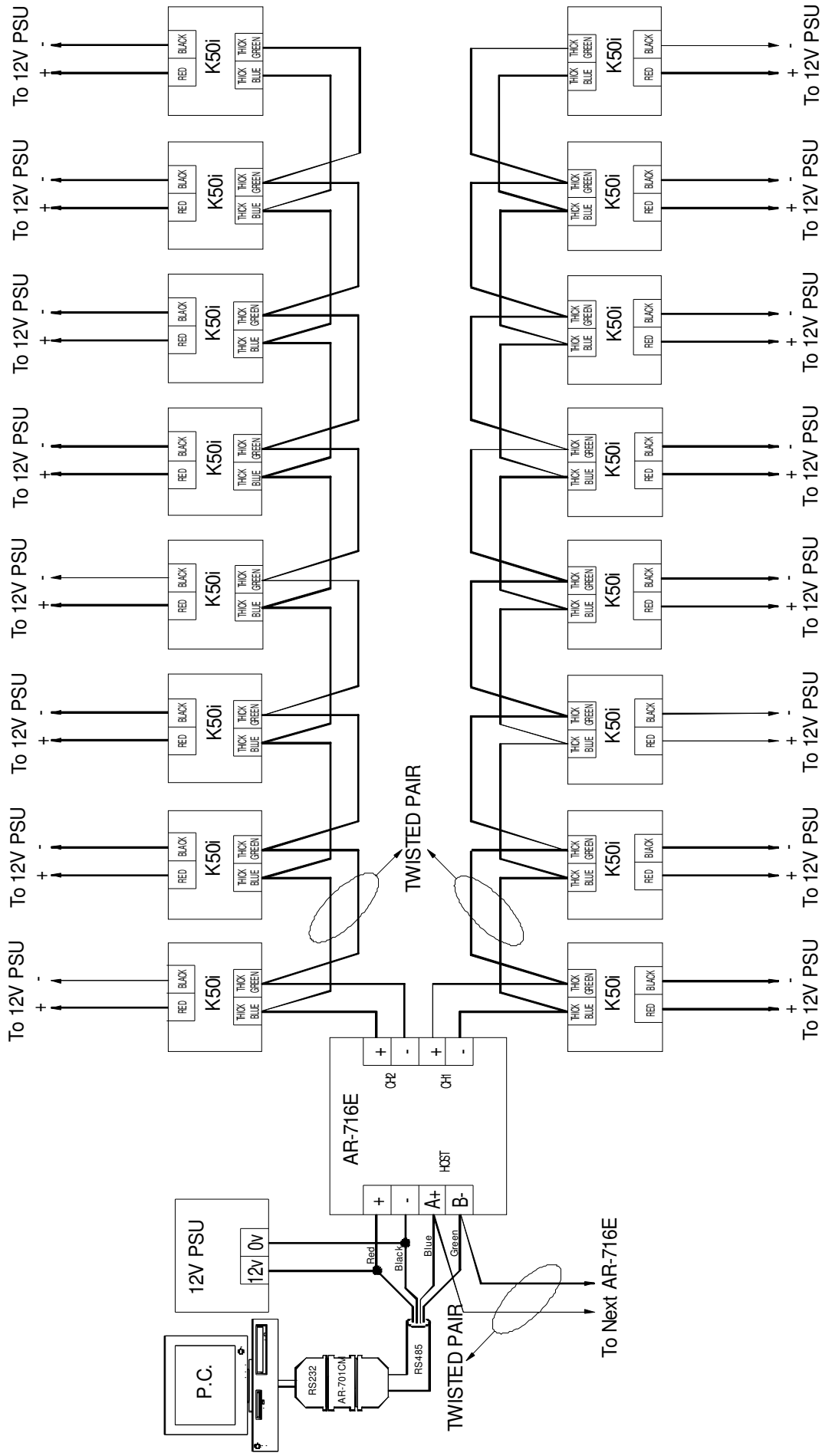
→ (NNN = Node ID of Keypad, VVV = Virtual 716E Node ID,

DDD = Door Number) →

Notice

Refer to the 701 Client and 701 Server manuals for information regarding PC Software.

Refer to Additional Connection Diagram on page 31 for details on connecting AR-485REP RS485 repeaters if connecting more than 32 Networked Keypads.



Please note that all drawings and diagrams supplied for bespoke applications for RSS products are given as a free service to assist customers and no liability for errors and omissions can be accepted by RSS. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	DRAWN	CHECKED	APPROVED	DATE
	INITIAL	11 - 02 - 08				
1						
TITLE			DRAWING No. RSS2000/89			
THE RAYTEL GROUP LTD			K50i connection diagram for up to 254x16 keypads using 716E 16 door controller			

NETWORKING UPTO 254 X 16 KEYPADS USING 716E 16 DOOR CONTROLLER

Initial Setup

1. Setting Node ID

Enter Programming Mode → or (If already changed)

→ (NNN = Node ID of Keypad) →

Notice

Refer to the 701 Client and 701 Server manuals for information regarding PC Software.

AUTO-OPEN TIME ZONE PROGRAMMING

Initial Setup

1. Enable/Disable Auto-Open Zone

Enter Programming Mode → or (If already changed)
 → (Refer to Chart 20*DDD# below for additional function values) →

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

Enter Programming Mode → or (If already changed)
 → (Refer to Chart 24*DDD# on page 23 for additional function values) →

3. Open Time Setup

Enter Programming Mode → or (If already changed)
 → (N = 2 sets of Auto-Open Zone, input 0 = First Set, 1 = Second Set, HHMMHHMM = Start time and End time, DDDDDDD = Days, 1 = Enable 0 = Disable) →

20*DDD#

Function	Option		Value	Application
	0	1		
Time Attendance	Yes*	No	001	Networking
Auto Re-lock	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-pass-back	Disable*	Enable	128	Networking

* = Default Setting

Example

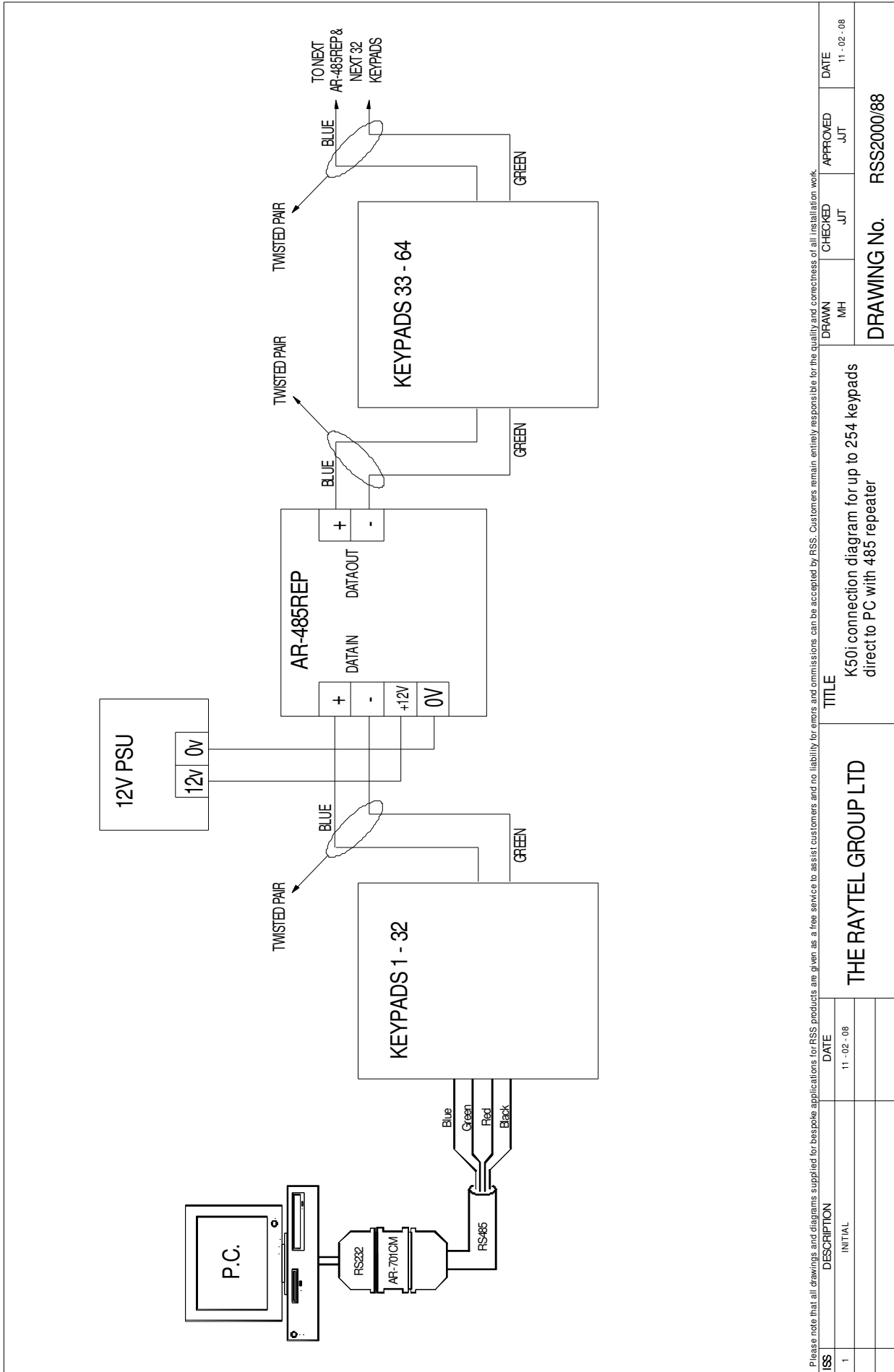
2. Enable/Disable Auto-Open Zone without Presenting a Token

Enter Programming Mode → or (If already changed)
 → (001 = Auto-Open Zone enabled, refer to page 23 for details) →

3. Open Time Setup

Enter Programming Mode → or (If already changed)
 → (1 = Second Set enabled, 08301000 = Auto-Open Time set from 0830 to 1000, 0111110 = Mon - Fri set) →

ADDITIONAL CONNECTION DIAGRAM



Please note that all drawings and diagrams supplied for bespoke applications for RSSD products are given as a free service to assist customers and no liability for errors and omissions can be accepted by RSSD. Customers remain entirely responsible for the quality and correctness of all installation work.

ISS	DESCRIPTION	DATE	TITLE		DRAWING No.		DATE
1	INITIAL	11-02-08	K50i connection diagram for up to 254 keypads direct to PC with 485 repeater		MH	JJT	11-02-08
			THE RAYTEL GROUP LTD				RSS2000/88

LIFT CONTROL AND ALARM PROGRAMMING CHARTS

A 、 20*DDD#				
Function	Option		Value	Application
	0	1		
Time Attendance	Yes*	No	001	Networking
Auto Re-lock	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-pass-back	Disable*	Enable	128	Networking
B 、 24*DDD#				
Function	Option		Value	Application
	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*	Enable	128	Networking / Stand-Alone
C 、 28*DDD#				
Function	Option		Value	Application
	0	1		
Two Door Opening	Disable*	Enable	64	Networking / Stand-Alone
Force Open Alarm Output	Disable*	Enable	128	Networking / Stand-Alone
* = Default Setting				

PROGRAMMING TABLE

Command List		
Function	Command	Control Mode
Entering Programming Mode	*123456# or *Master Code# (If Already Changed)	M4/6/8
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 Upto 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*111111# (N = 2 Sets of Auto Open Zone) HHMMHHMM = Start Time to End Time 111111 = Days S/M/T/W/T/F/S - 0 = Disable, 1 = Enable	M4/6/8
Master Code Setting	09*PPPPPPRRRRR# (PPPPPP = Master code, RRRRRR = Repeat Master Code)	M4/6/8
Deleting Tokens/User Codes	10*SSSSS9EEEE# (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)	15*PPPP# (PPPP = 4 Digit Duress Code) 15*PPPP# (PPPP = 4 – Digit Common Code - Set to 0000 to disable)	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*QQQQ# (UUUUU = User Address, QQQQ = Token Quantity)	M4/6/8
Factory Setting 1	20*DDD# (DDD – Refer to Chart A 20*DDD# on Page 32 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 32 for Details)	M4/6/8
Real Time Clock Setting (Stand-Alone)	25*YYMMDDHHmss# (YYMMDDHHmss = Year/Month/Day/Hour/Minute/Second)	M4/6/8
Anti-Passback (Enable User)	26*SSSSS*EEEE# (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 32 For Details)	M4/6/8
Delete All Users	29*29*# followed by *#	M4/6/8

SPECIFICATIONS

K50i Datasheet			
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 Public Password	4-Digit Individual Password
Support	Stand-Alone / Networking		
Power Requirement	9-24 VDC 9-18 VAC		
Voltage	<3W		
Communication Interface	RS-485		
Baud Rate	9600 bps (N, 8, 1)		
Operating Temperature	-20°C ~ +75°C		
DI Input	Egress Button Door Sensor		
DO Output	1 Door Relay Output		
Transistor Output	Duress/Alarm/Arming LED		
Door Relay Time	0, 0.1~600 sec.		
Alarm Relay Time	0, 1~600 sec.		
Tamper Resist. Switch	Limit Switch (Form C)		
Anti-Passback	Yes		
Serial Out	TTL (4800 bps, N, 8, 1)		
IP Rating	IP65		
Real Time Clock	Yes		
Indicator	1 Bi-Colour LED 1 Piezo Sounder		
Colour	PBT Housing	Gray ABS Plastic	
	Metal Box	Brushed Stainless Steel	
Dimensions (mm)	PBT only	113.75(L)x65.20(W)x28.20(H)	
	Metal Box	150(L)x92(W)x49.28(H)	
Housing Material	PBT Keypad Housing Metal box: 316 Stainless Steel		

