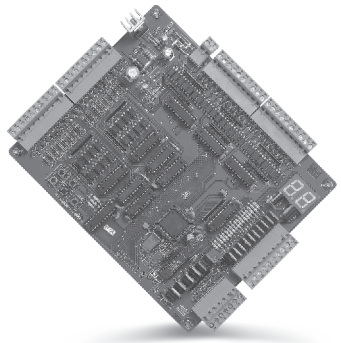
AD009 PROGRAMMING MANUAL



Features:

Features:

- **No of Stop**
  - → G+7 Auto Door Down Collective.
  - → G+5 Fully Collective Selective Auto Door.

  If Extension card used.
  - → G+15 Auto Door Down Collective.
  - → G+10 Fully Collective Selective Auto Door.

Operations:

- **Operations:**
  - → Universal
  - → Simplex down Collective
  - → Simplex full Collective

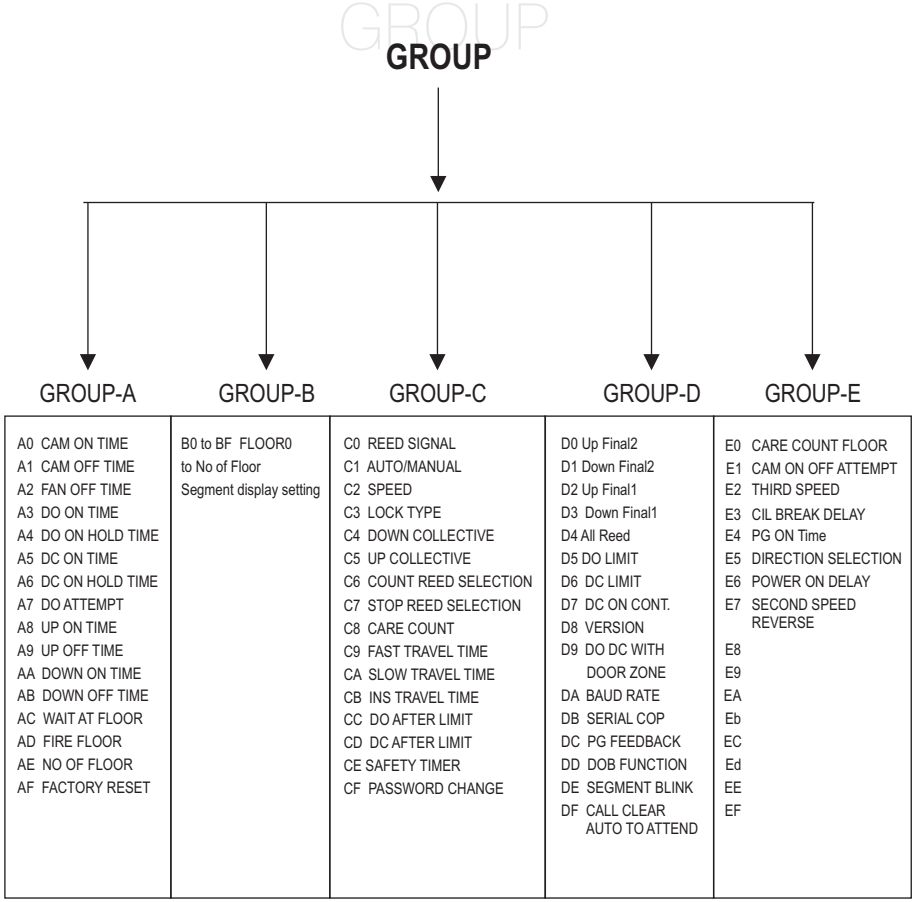
Speed:

- **Speed:**
  - → Up to 2 m/sec
- TWO SEVEN SEGMENT and Keypad Interface

Using 2 SEGMENT and Keypad user can set parameter as per they requirement.
All are password protected so other can not change the parameter. Manual will carry the list of parameter and instruction of programming.

- → Call Register LED and Call Push Button are on single wire.
- → On board Seven Segment Display.
- → All the Input and Output are Opto-isolated and available in both 12VDC and 24VDC.
- → All the Input and Output are carrying LED indication on board.

AD009 PROGRAMMING MANUAL



- **Group A:**

→ **A0 (CAM ON TIME): 0 to 99 Second: Default: 0**
R-Cam Operating Time Setting

→ **A1 (CAM OFF TIME): 0 to 99 Second: Default: 2**
R-Cam De-energize time setting

→ **A2 (FAN OFF TIME): 0 to 99 Second: Default: 4**
Auto light and FAN time setting. This time start after all call become zero, interlock circuit ok.

→ **A3 (DO ON TIME)**
Door Open Command Operating Time Setting

→ **A4 (DO ON HOLD TIME): 0 to 99 Second Default 10 Sec (if 0 Disable)**
Time during which Do Command will remain on. After this time Do command become off.

→ **A5 (DC ON TIME) : 0 to 99 Second**
Door Close Command Operating Time Setting

→ **A6 (DC ON HOLD TIME): 0 to 99 Second Default 10 Sec (if 0 Disable)**
Time in which doors must be closed. Before this time to zero if DC Limit or Interlock Come Door Close Operation will be complete. After This time if Interlock is not Ok then door will reopen again. After three attempts without a result the door error will activate, and after this time there will be one attempt to close and lock the doors Also the error will be logged in the error table.

→ **A7 (DO ATTEMPT)**
No of time Door open and close function retry.

→ **A8 (UP ON TIME): 0.1 to 9.9 Second: Default: 0**
Up Command Operating Time setting

→ **A9 (UP OFF TIME): 0.1 to 9.9 Second: Default: 0**
Up command off time setting. These time starts after floor level stop command come.

→ **AA (DN ON TIME): 0.1 to 9.9 Second: Default: 0**
Down Command Operating Time setting

→ **Ab (DN OFF TIME): 0.1 to 9.9 Second: Default: 0**
Down command off time setting. These time starts after floor level stop command come.

→ **Ac (WAIT AT FLOOR): 0 to 99 Second: Default: 4**
Wait at floor between two calls. This timer is only applicable for V3F and Regular Lift not for Auto Door.

→ **Ad (FIRE FLOOR): 0 to No Of Floor: Default: 0**
In Fire Mode Lift will go the above selected floor? Default it is Ground floor

→ **AE (NO OF FLOOR): 0 to 16 : Default : 8 (G+7)**
No of Stop

→ **AF (FACTORY RESET):**
For Factory Reset you have to enter a password and wait a second all the default parameter will be restore.

- **GROUP B SEGMENT DISPLAY SETTING (B0 to BF)**

  Floor Segment value change at every floor

- **GROUP C :**

→ **C0 REED SIGNAL: Type of Floor Signal**
CO = 00 : Every Floor Reed (All Reed)
CO = 01 : Cabin Top Reed (Three Reed)

→ **C1 AUTO/MANUAL: Type of Lift**
C1 = 00 : Manual Door
C1 = 01 : Auto Door

→ **C2 SPEED**
C2 = 00 : Single Speed
C2 = 01 : Two Speed

→ **C3 LOCK TYPE**
C3 = 00 : Simple Lock
C3 = 01 : Otis Type Lock

→ **C4 & C5 COLLECTIVE**
C4 = 01 & C5 = 00 Down Collective
C5 = 01 & C4 = 00 Up Collective
C4 & C5 = 00 Up Down Collective
C4 & C5 = 01 Fully Collective Selective

→ **C6 COUNT REED SELECTION (This is only for Cabin Top Reed option)**
C6 = 00 : Mono-Stable Reed Switch
C6 = 01 : Bi-Stable Reed Switch

→ **C7 STOP REED SELECTION**
(This is only for Cabin Top Reed option)
C7 = 00 : Mono-Stable Reed Switch
C7 = 01 : Bi-Stable Reed Switch

→ **C8 CARE COUNT : (0 to 99) X 20 : Default : 0(Disable)**
After care count is activation lift will count the no of times lift go for Care Count floor as per EO Parameter if it equal to care count it will ask for maintenance.

→ **C9 FAST TRAVEL TIME: 0 to 99 Second: Default: 15**
This timer started after Up or Down Fast Command Come. If in between any Floor reed signal come they will restart. If time out occurs it will stop the output.

→ **CA SLOW TRAVEL TIME: 0 to 99 Second: Default: 15**
This timer started after up or Down Slow Command Come. If in between any Floor reed signal come they will restart. If time out occurs it will stop the output.

→ **Cb INS TRAVEL TIME:** 0 to 99 Second: Default: 15
This timer started after up or Down Maintenance Command Come. If in between any Floor reed signal come they will restart. If time out occurs it will stop the output.

→ **CC DO ON AFTER LIMIT**
→ **Cd DC ON AFTER LIMIT**
→ **CE SAFETY TIMER**

→ **CF PASSWORD CHANGE:**
Enter new password then press Enter key new password will set

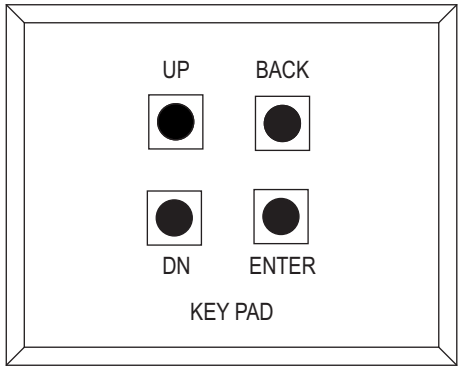
- **GROUP D**

→ d0 UFC2
d0 = 00 : UFC2 = NO
d0 = 01 : UFC2 = NC
→ d1 DFC2
d1 = 00 : DFC2 = NO
d1 = 01 : DFC2 = NC
→ d2 UFC1
d2 = 00 : UFC1 = NO
d2 = 01 : UFC1 = NC
→ d3 DFC1
d3 = 00 : DFC1 = NO
d3 = 01 : DFC1 = NC
→ d4 ALL REED
d4 = 00 : ALL REED = NO
d4 = 01 : ALL REED = NC
→ d5 DO LIMIT
d5 = 00 : DO LIMIT = NO
d5 = 01 : DO LIMIT = NC
→ d6 DC LIMIT
d6 = 00 : DC LIMIT = NO
d6 = 01 : DC LIMIT = NC
→ d7 DC ON CONT
ON/OFF
→ d8 VERSION
Current Version

- **GROUP E**

  Please check parameter list

Keys Configuration:



Programming Step :

Using Two Segments and 4 Keys Enter, Back, Up and Down. User can program the parameter.
Press the Enter key for 3 Sec to enter into Program Mode. Very first it will ask for password.
After entering password correct you can access board parameter. If password enters incorrect three times system gets block off.

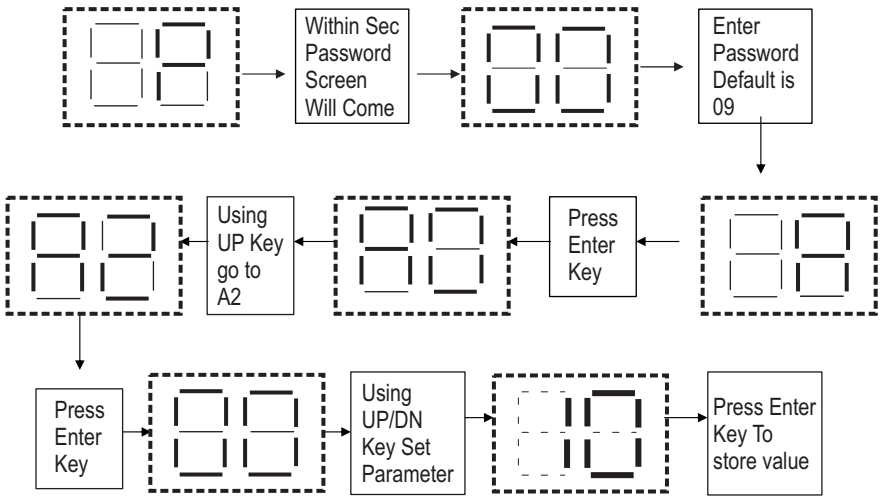
ALL PARAMETER ARE DIVIDED INTO FIVE GROUP A, B, C, D AND E.
Using UP and DN key User can change group of parameter as per your requirement.
And press enter key on your required group you will get list of parameter related that group.

E.g. suppose you want to change a FAN Off timing.
Step 1: Press Enter Key for 3 Sec you will get P on segment. After that enter a correct password. Then go to Group A using UP/DN Key.

Step 2: Press Enter On A Group you will got list of A group parameter. Now using UP/DOWN Key go to A2 Parameter and press enter key you will get value of FAN OFF TIME.

Step 3: Now as per your requirement set time in Sec using UP/DOWN Key. After that press Enter Key to Store a Data. Or Back key to come out without storing a Data.

Above example for setting of FAN OFF TIME
Step 1: Press Enter Key for 3 Sec You will got P

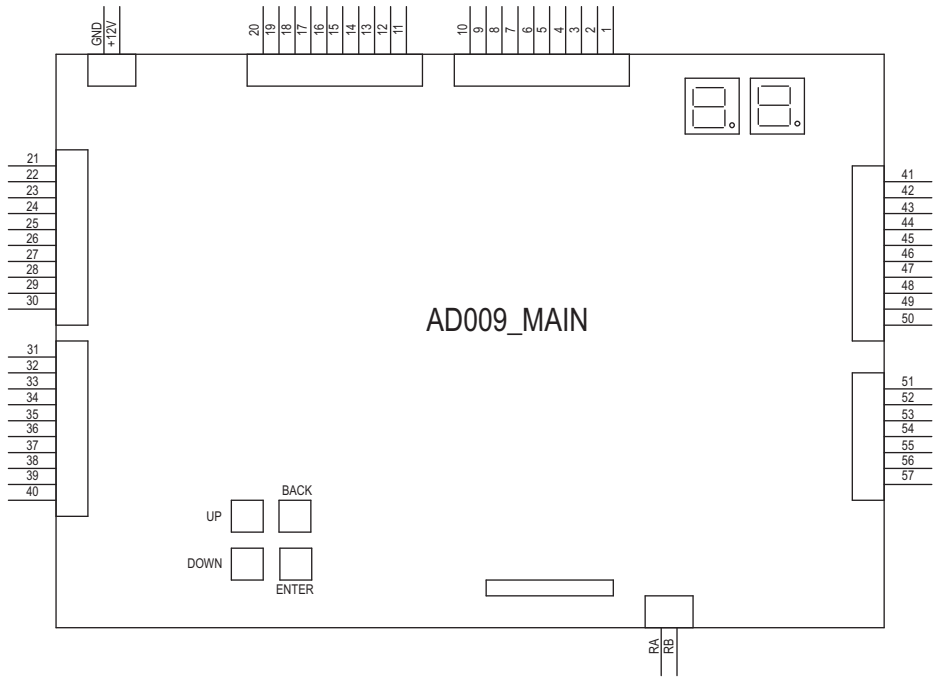


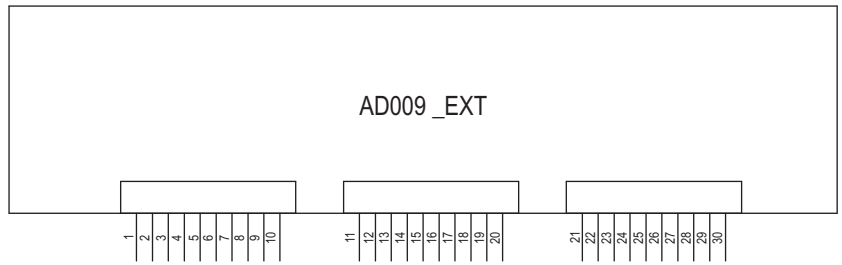
Parameter List :

Sr. No.	Name	Parameter	Range	Default
1	A 0	CAM ON TIME	0-99 Sec	0
2	A 1	CAM OFF TIME	0-99 Sec	1
3	A 2	FAN OFF TIME	0-99 Sec	4
4	A 3	DO ON TIME	0-99 Sec	1
5	A 4	DO ON HOLD TIME	0-99 Sec	4
6	A 5	DC ON TIME	00-99 Sec	1
7	A 6	DC ON HOLD TIME	0-99 Sec	4
8	A 7	DO ATTEMPT	0-99	8
9	A 8	UP ON TIME	0.0-9.9 Sec	0
10	A 9	UP OFF TIME	0.0-9.9 Sec	0
11	A A	DOWN ON TIME	0.0-9.9 Sec	0
12	A b	DOWN OFF TIME	0.0-9.9 Sec	0
13	A c	WAIT AT FLOOR	0-99 Sec	4
14	A d	FIRE FLOOR	0-15	0
15	A E	NO OF FLOOR	1-16	8
16	A F	FACTORY RESET	00	
17	B 0 to B F	SEGMENT SETTING	0 to 15	0 TO 15
18	C 0	REED SIGNAL	ALL/THREE REED	1-THREE REED
19	C 1	AUTO/MANUAL	AUTO/MANUAL DOOR	1-AUTO DOOR
20	C 2	SPEED	SINGLE/TWO	1-TWO SPEED
21	C 3	LOCK TYPE	SIMPLE/OTIS LOCK	1-OTIS LOCK
22	C 4	DOWN COLLECTIVE	DOWN COLLECTIVE	00 (UPDOWN COLLECTIVE)
23	C 5	UP COLLECTIVE	UP COLLECTIVE	
24	C 6	COUNTING REED SELECTION	MONO/BISTABLE SW	MONO SW
25	C 7	STOPING REED SELECTION	MONO/BISTABLE SW	MONO SW
26	C 8	CARE COUNT	(0-99) X 20 COUNT	0 COUNT
27	C 9	FAST TRAVEL TIME	0-99 Sec	0
28	C A	SLOW TRAVEL TIME	0-99 Sec	0
29	C B	INS TRAVEL TIME	0-99 Sec	0
30	C C	DO ON AFTER LIMIT	1.0-9.9 Sec	0
31	C D	DC ON AFTER LIMIT	1.0-9.9 Sec	0
32	C E	SAFETY TIMER	0-99 Sec	2
33	C F	PASSWORD	00	09
34	D 0	UP FINAL 2	2 (0) NO/(1) NC	(1) NC
35	D 1	DOWN FINAL 2	2 (0) NO/(1) NC	(1) NC
36	D 2	UP FINAL 1	1 (0) NO/(1) NC	(1) NC
37	D 3	DOWN FINAL 1	1 (0) NO/(1) NC	(1) NC
38	D 4	ALL REED	(0) NO/(1) NC	(0) NO
39	D 5	DOLIMIT	(0) NO/(1) NC	(0) NO
40	D 6	DCLIMIT	(0) NO/(1) NC	(0) NO
41	D 7	DC ON CONT	(0) OFF/(1) ON	(0) OFF
42	D 8	VERSION	Current Version	08
43	D 9	AUTO DOOR COMMAND WITH DRIVE STOP	(0) OFF/(1) ON	(0) OFF
44	DA	BAUD RATE	See The Chart	(3) 19200 bps
45	DB	Serial COP	(0) OFF/(1) ON	(0) OFF
46	DC	PGFeedback	(0) OFF/ (1) ON	(0) OFF
47	DD	DOB FUNCTION	(0) OFF/ (1) ON	(0) OFF

Parameter List :

Sr.No.	Name	Parameter	Range	Default
48	DE	SEGMENT BLINKING	(0) OFF / (1) ON	(1) ON
49	DF	CALL CLEAR AUTO TO ATTND	(0) OFF / (1) ON	(1) ON
50	E0	CARE COUNT FLOOR	0-15	0
51	E1	CAM ON OFF ATTEMPT	00-99	16
52	E2	THIRD SPEED FOR HIGH SPEED	0-15	2
53	E3	CIL BREAK DELAY	0-99	3
54	E4	PG ON Time	0.0-9.9 Sec	1.0 Sec
55	E5	DIRECTION SELECTION	(0) OFF / (1) ON	(0) OFF
56	E6	POWER ON DELAY	00-99 SEC	2 SEC
57	E7	SECOND SPEED REVERSE	(0) OFF / (1) ON	(1) ON
58	E8			
59	E9			
60	EA			
61	Eb			
62	EC			
63	Ed			
64	EE			
65	EF			





AD009 MAIN CARD CONNECTION

No	Input Regular / Drive/Auto	4 Reed / 2 Reed	C/s		Output
1	Fire	Fire	Fire	41	A
2	Inspection	Inspection	Inspection	42	B
3	DFC2	DFC2	DFC2	43	C
4	UFC2	UFC2	UFC2	44	D
5	Auto	Auto	Auto	45	E
6	Stop	Stop	Stop	46	F
7	LIL	LIL	LIL	47	G
8	CIL	CIL	CIL	48	H
9	Drive Stop	Drive Stop	Drive Stop	49	DC
10	CDP	CDP	CDP	50	LpBuzzer
11	DCLimit	DCLimit	DCLimit	51	ILBUZZER/DO
12	DOLimit	DOLimit	DOLimit	52	Up Drive
13	Dc Manual	Dc Manual	Dc Manual	53	Down Drive
14	Do Manual	Do Manual	Do Manual	54	CAM
15	Ins up	Ins up	Ins up	55	Second Speed
16	Ins Dn	Ins Dn	Ins Dn	56	FAN
17	R0	DFC1	DFC1	57	Third Speed
18	R1	DR	DR	58	Extra
19	R2	UR	UR		
20	R3	SAFETY	SAFETY		
21	R4	Overload	Overload		
22	R5	DDP	DDP		
23	R6	UDP	UDP		
24	R7	UFC1	UFC1		

Call Pushbutton and Call Register Connection

			C/S up to 6 Stop	C/S above 6 Stop	
25	C0	C0	C0	C0	
26	C1	C1	C1	C1	
27	C2	C2	C2	C2	
28	C3	C3	C3	C3	
29	C4	C4	C4	C4	
30	C5	C5	C5	C5	
31	C6	C6	LUP0	C6	
32	C7	C7	LUP1	C7	
33	L0	L0	LUP2	LUP0	
34	L1	L1	LUP3	LUP1	
35	L2	L2	LUP4	LUP2	
36	L3	L3	LDN1	LUP3	
37	L4	L4	LDN2	LUP4	
38	L5	L5	LDN3	LUP5	
39	L6	L6	LDN4	LUP6	
40	L7	L7	LDN5	LUP7	

AD009 EXT CARD CONNECTION

No	Input Regular / Drive/Auto	Input 4 Reed / 2 Reed		C/S above 6 Stop	
1	C8	C8		C8	
2	C9	C9		C9	
3	C10	C10		C10	
4	C11	C11		LUP8	
5	C12	C12		LUP9	
6	C13	C13		LDN8	
7	C14	C14		LDN9	
8	C15	C15		LDN10	
9	L8	L8			
10	L9	L9		LDN1	
11	L10	L10		LDN2	
12	L11	L11		LDN3	
13	L12	L12		LDN4	
14	L13	L13		LDN5	
15	L14	L14		LDN6	
16	L15	L15		LDN7	
17	R8				
18	R9				
19	R10				
20	R11				
21	R12				
22	R13				
23	R14				
24	R15				
25	X				
26	RA				
27	RB				
28	X				
29	+12V				
30	GND				

→ **No of Configuration for Reed Signal:**

1. Every Floor Reed Signal

For this configuration R0 to R15 will be input as every floor reed signal
DFC1 with R0 and UFC1 with R15
Floor Level Stopping at DRVSTP

2. Cabin Top Reed Signal

a. Simple Three Reed

For this configuration DFC1 at R0, UFC1 at R7
Down Counting Reed at R1,Up Counting Reed at R2
Floor Level Stopping at DRVSTP

b. Bi-stable Two Reed

For this configuration DFC1 at R0, UFC1 at R7
Counting Reed at R1
Floor Level Stopping at DRVSTP

→ **Function Selection:**

1. UP Collective/Down Collective/Up Down Collective

2. Fully Collective Selective

Note: Please Refer Input Output Chart for Connection

→ **Fault Indication:**

In Case of Fault it will blink a segment with that particular fault Indication

1. CIL (Car Interlock) For a Manual Door Configuration if Car Interlock circuit is not complete within predefined time the segment will blink with particular Floor indication and ***C.***

2. LIL(Landing Interlock) For a Manual Door Configuration if Landing interlock circuit is not complete within predefine time the segment will blink with that particular Floor Indication and ***L***

3. For Auto Door Configuration it will check the both interlock up to ***Do Attempt*** Times. After that it will blink for interlock Fault Indication as per above.

4. Up Final Short if Up Final Short the segment blink ***t*** with particular floor indication

5. Down Final Short if Down Final Short the Segment blink ***d*** with that particular floor indication

6. Car Push Signal Stuck Up For Manual Door if Car Push Signal Button Stuck up the Segment blink ***o*** with that particular floor indication.

7. Landing Push Signal Stuck Up For Manual Door if Landing Push button stuck up the segment blink ***n*** with that particular floor indication.

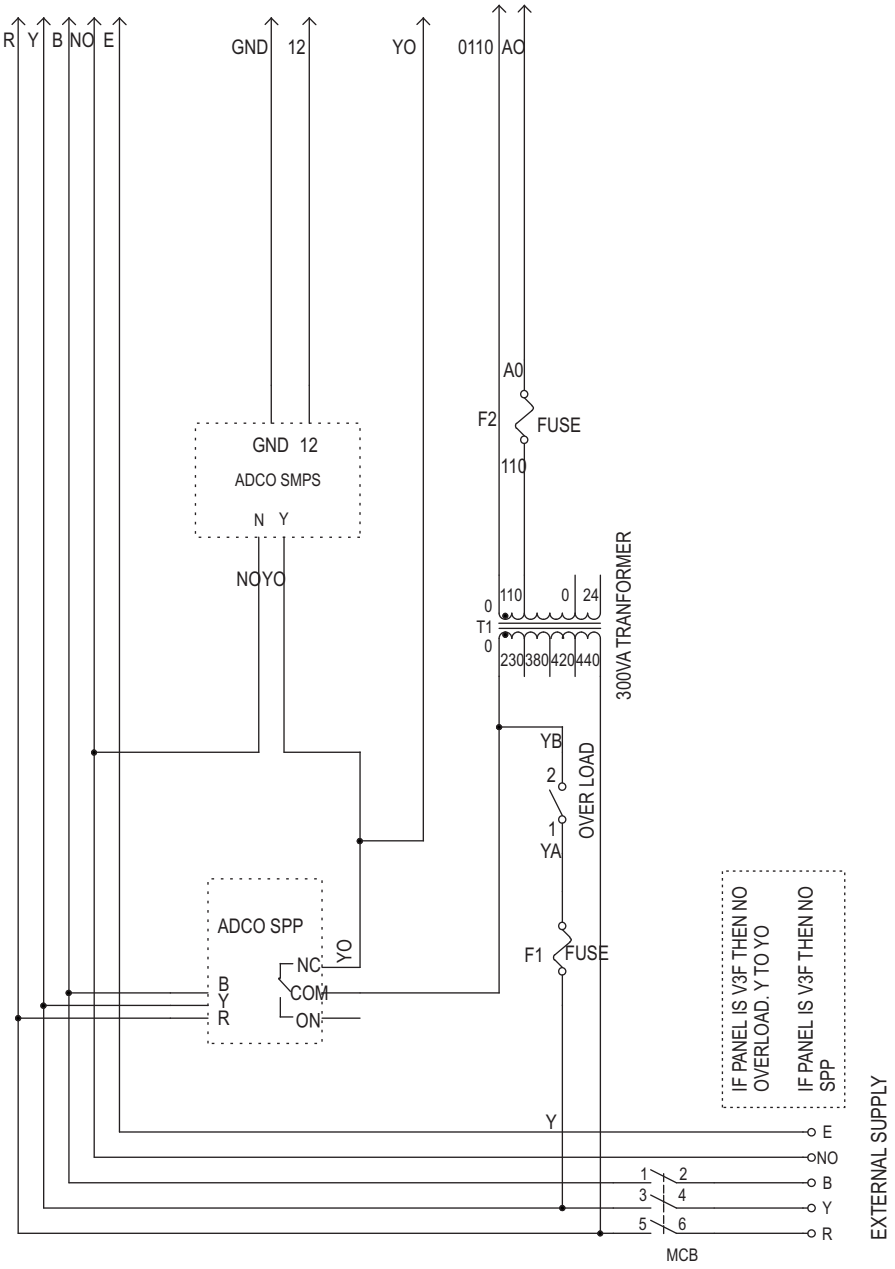
CIRCUIT DIAGRAM LAYOUT :

PAGE NUMBER	SHEET DESCRIPTION
15	COVER SHEET
16	SUPPLY CIRCUIT
17	DRIVE CONNECTION
18	SINGLE SPEED MOTOR & CONTACTOR
19	TWO SPEED MOTOR & CONTACTOR
20	PM GEARLESS MOTOR & CONTACTOR
21	SAFETY CIRCUIT
22	MAIN CARD CONNECTION
23	LANDING WIRING
24	CAR WIRING
25	RELAY CARD + SAFETY CIRCUIT
26	CABIN TOP REED SIGNAL & MAGNET
27	BI-STABLE SIGNAL & MAGNET
28	EVERY FLOOR REED & MAGNET
29	CONTRACTOR STRIP
30 / 31	RELAY CARD CONNECTIONS

TECHNICAL SPECIFICATIONS:

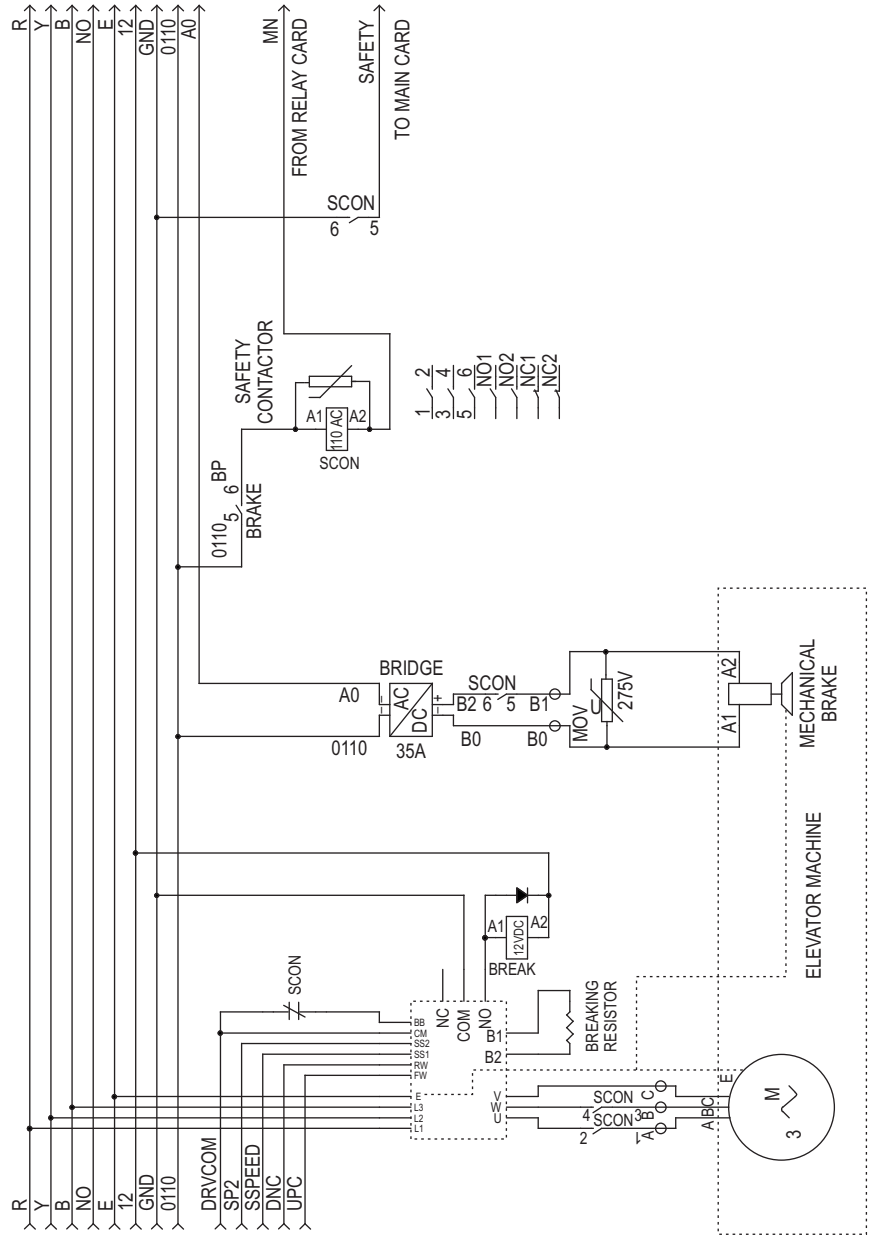
CONTROL CARD	**AD009**
DRIVE TYPE	V3F
CAR INSTALLATION	PARALLEL
SUPPLY VOLTAGE	3 X 440V, 50Hz, E
SAFETY CIRCUIT VOLTAGE	110V, 50Hz
SINGLE VOLTAGE	12V DC
EMERGENCY LIGHT VOLTAGE	12V DC
BRAKE VOLTAGE	110V DC
R CAM VOLTAGE	110V DC

AD009 : SUPPLY CIRCUIT



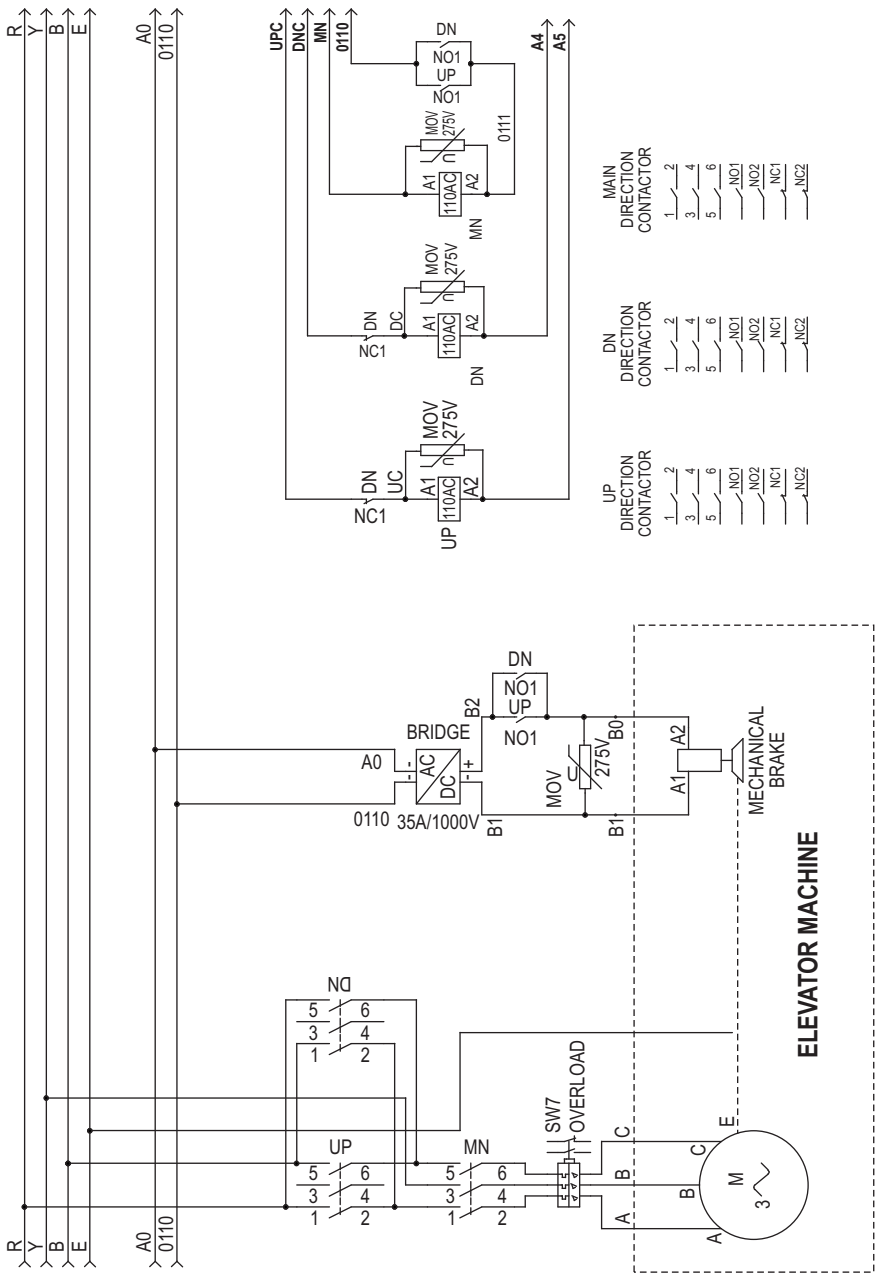
AD009 : Supply Circuit

AD009 : DRIVE CONNECTION

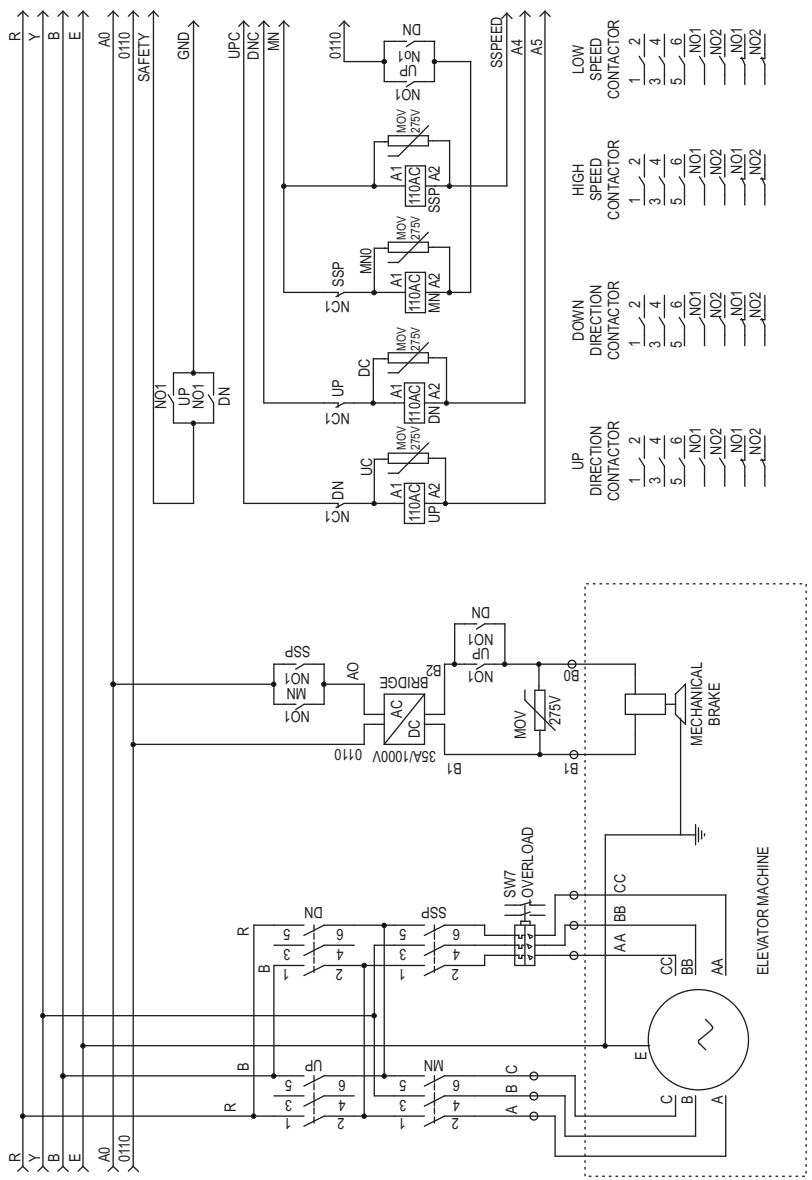


AD009 : Drive Connection

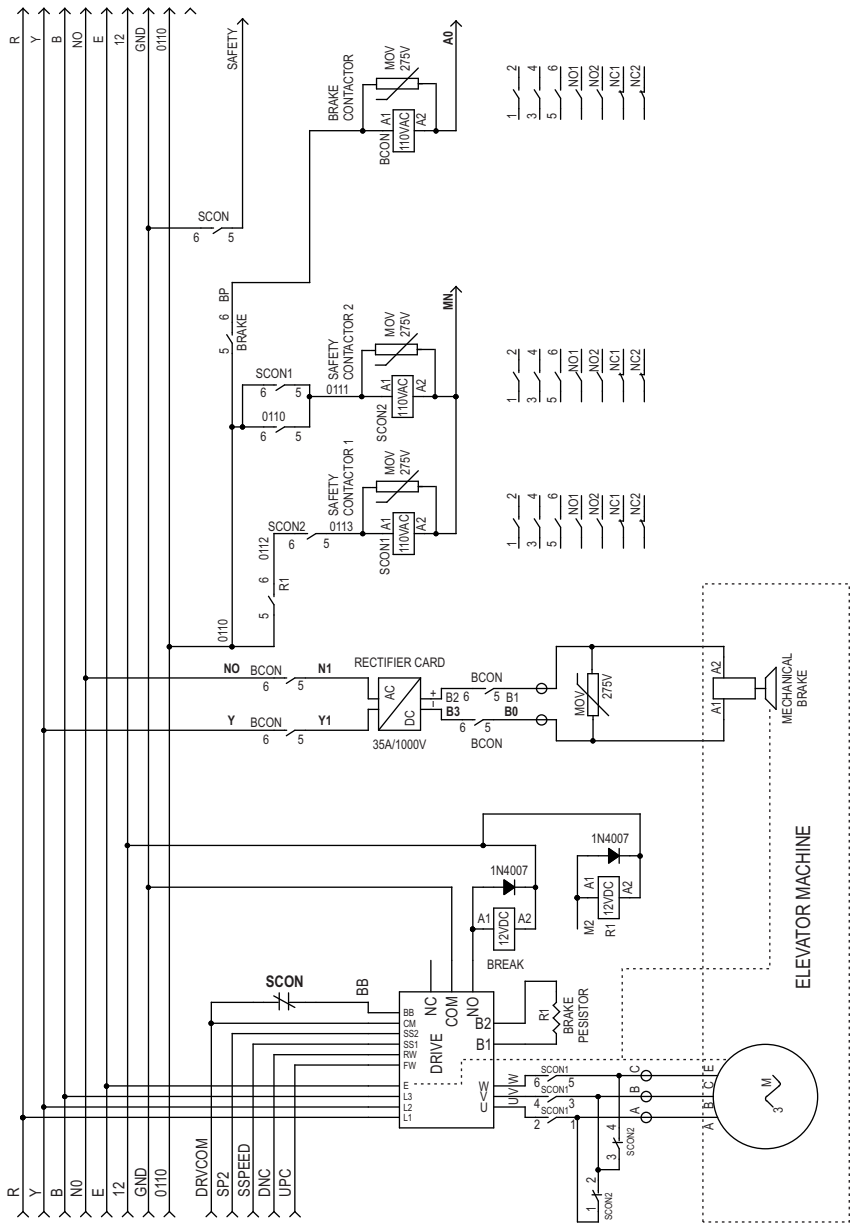
AD009 : SINGLE SPEED MOTOR & CONTACTOR



AD009 : TWO SPEED MOTOR & CONTACTOR WIRING



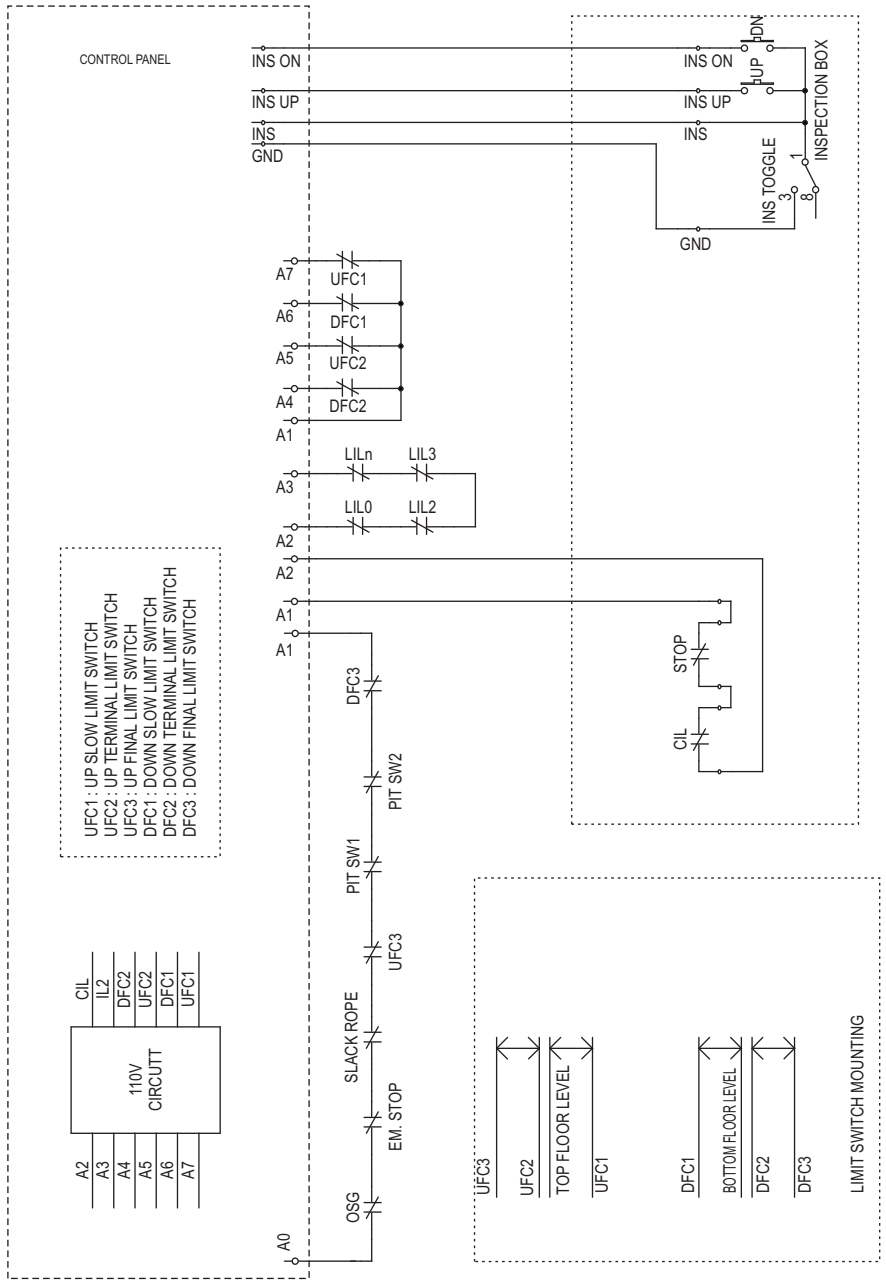
PM GEARLESS MOTOR AND CONTACTOR WIRING



PM GEARLESS MOTOR AND CONTACTOR WIRING

Pm Gearless Motor And Contactor Wiring

AD009 : SAFETY CIRCUIT

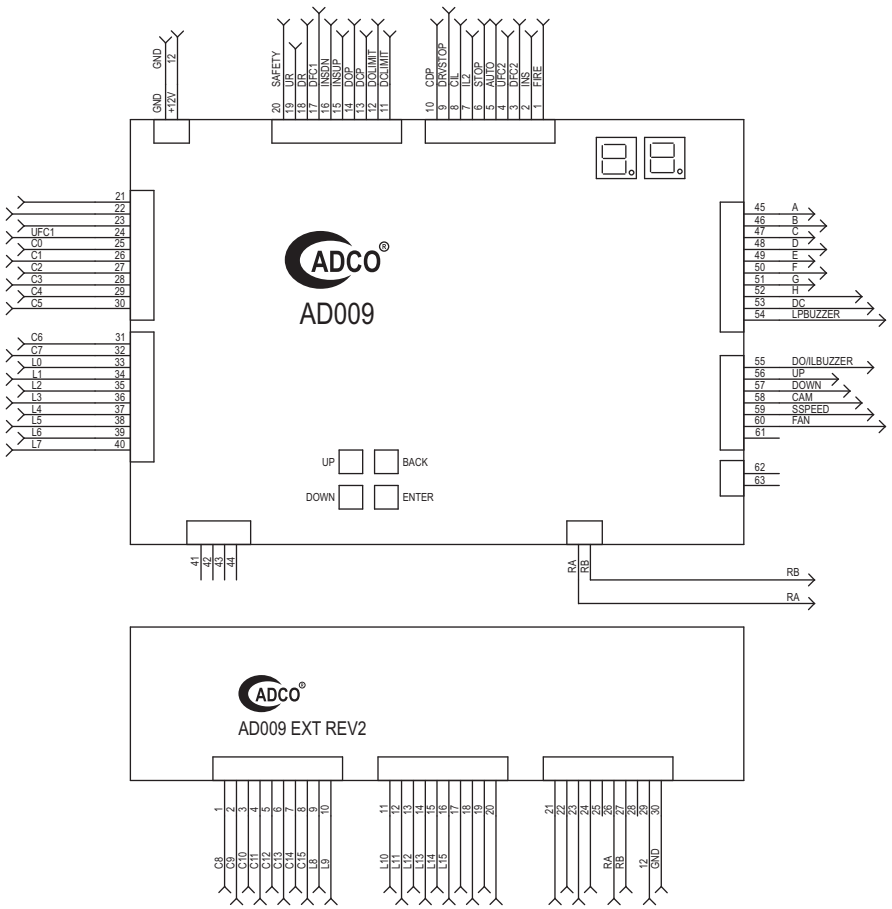


AD009 : SAFETY CIRCUIT

Ad009 Safety Circuit

AD009 : MAIN CARD CONNECTION

AD009 : Main Card Connection



INPUT

CIL	:	CAR INTERLOCK
II2	:	LANDING INTERLOCK
STOP	:	STOP PUSH BUTTON
AUTO	:	AUTO/ATTEND KEY
FIRE	:	FIREMEN SWITCH
L0 TO L15	:	LANDING CALL PUSH BUTTON
C0 TO C15	:	CAR CALL PUSH BUTTON
DRVSTOP	:	FLOOR LEVEL STOPING SIGNAL
DFC1, UFC1	:	DOWN & UP SLOW LIMIT SWITCH
DFC2, UFC2	:	DOWN & UP SLOW TERMINAL LIMIT SWITCH FOR ALL REED REFER INPUT OUTPUT CHART

POWER SUPPLY

GND AND 12	:	12V DC POWER SUPPLY

AUTO DOOR SIGNAL

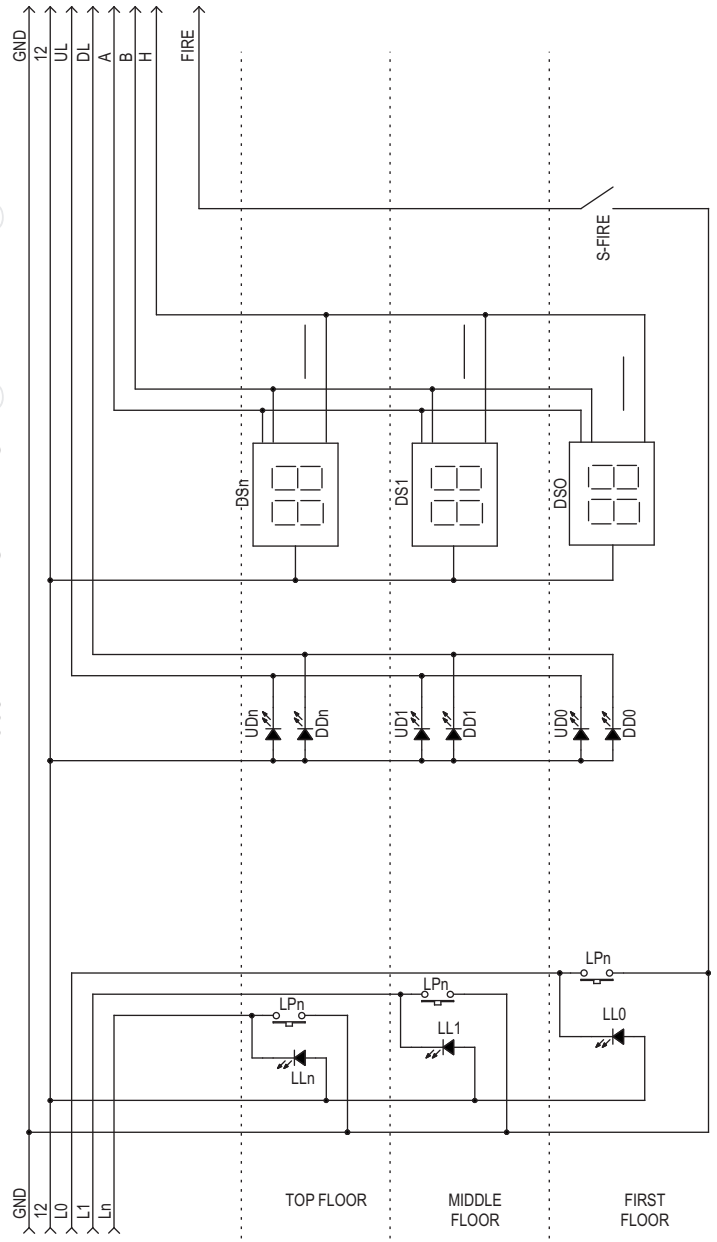
DOLIMIT	:	DOOR OPEN LIMIT
DCLIMIT	:	DOOR CLOSE LIMIT
DOP	:	DOOR OPEN PUSH
DCP	:	DOOR CLOSE PUSH
CDP	:	CAR DOOR SAFETY PAD

OUTPUT

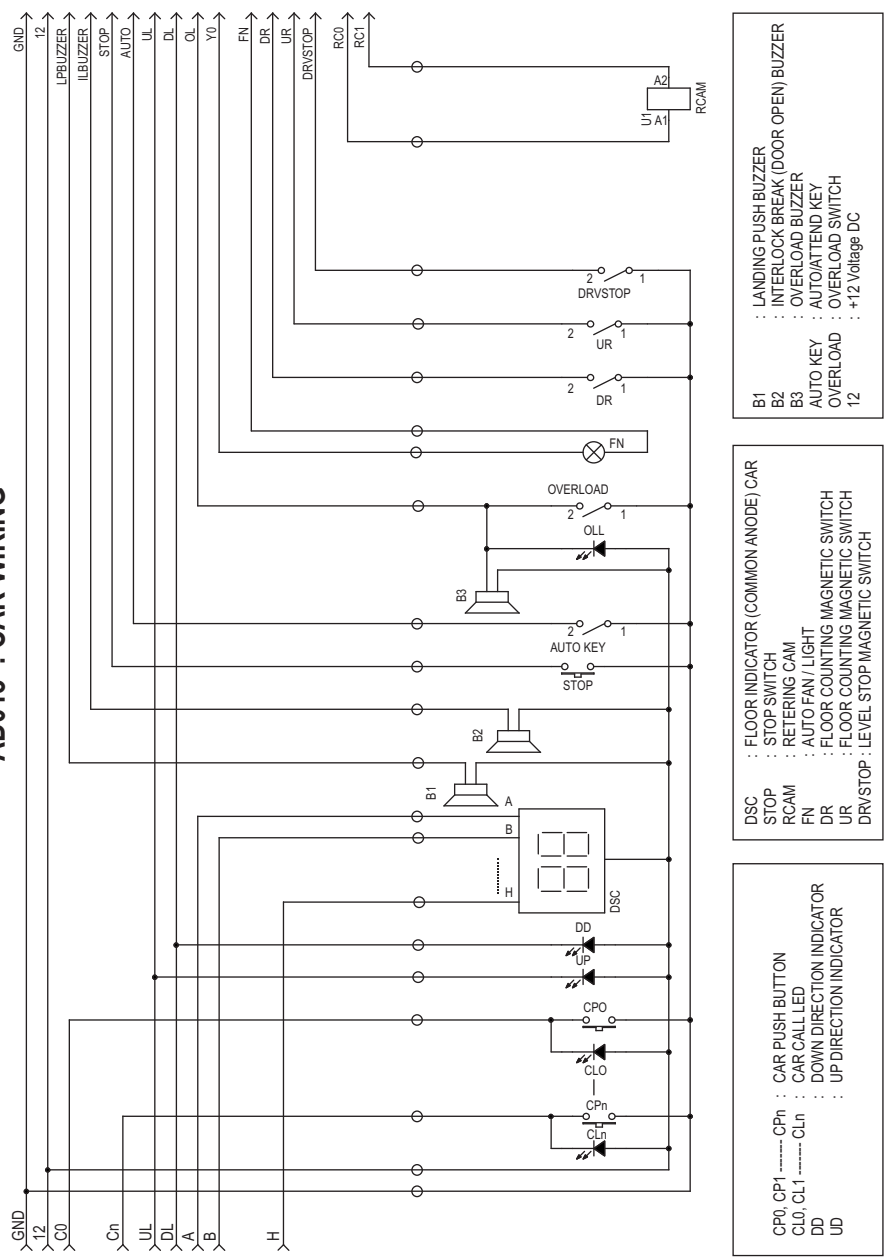
DO	:	DOOR OPEN COMMAND
DC	:	DOOR CLOSE COMMAND
LPBUZZER	:	LANDING PUSH BUZZER
A TO H	:	SEVEN SEGMENT OUTPUT
SSPEED	:	SECOND SPEED
ILBUZZER	:	INTERLOCK BUZZER (ONLY FOR MANUAL DOOR)
UP	:	UP COMMAND
DN	:	DOWN COMMAND
CAM	:	RETERING CAM
FAN	:	AUTO LIGHT/FAN

AD009 : LANDING WIRING

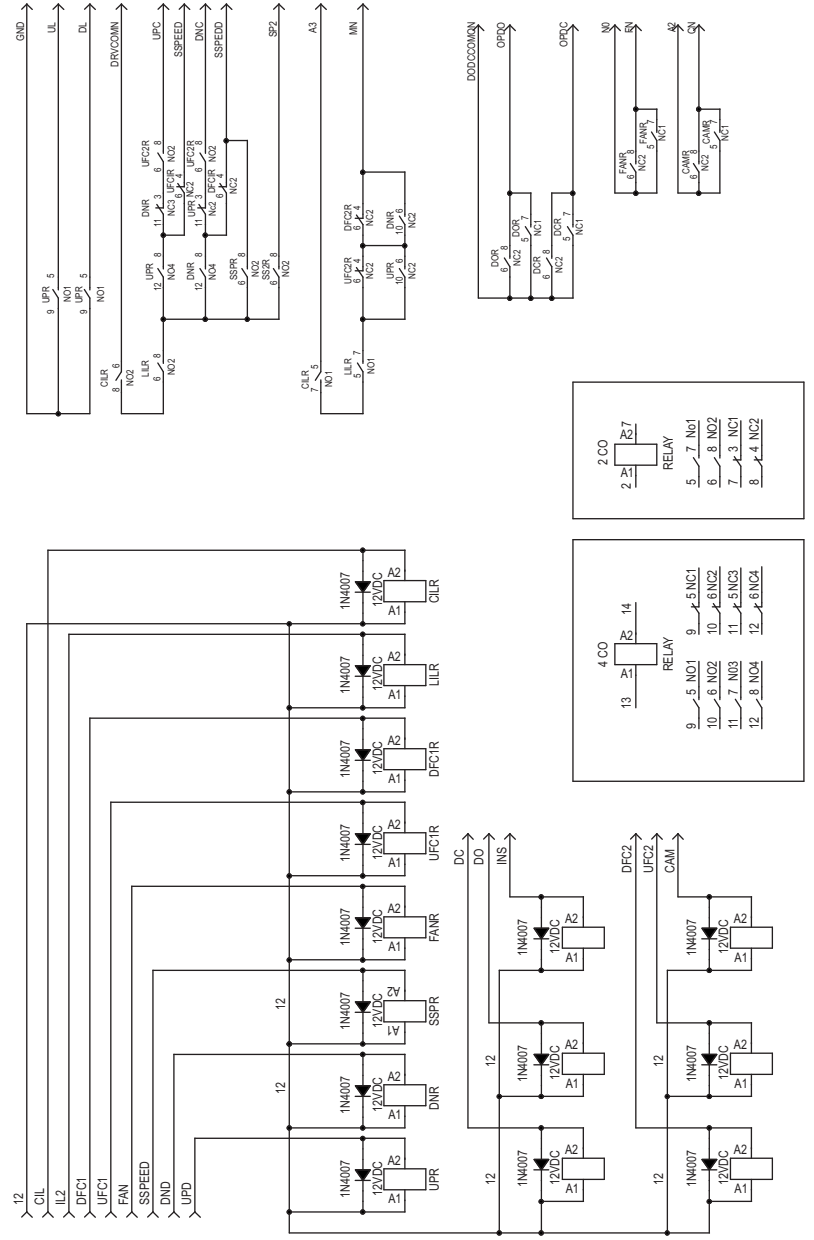
AD009 : Landing Wiring



Ad013 : CAR WIRING

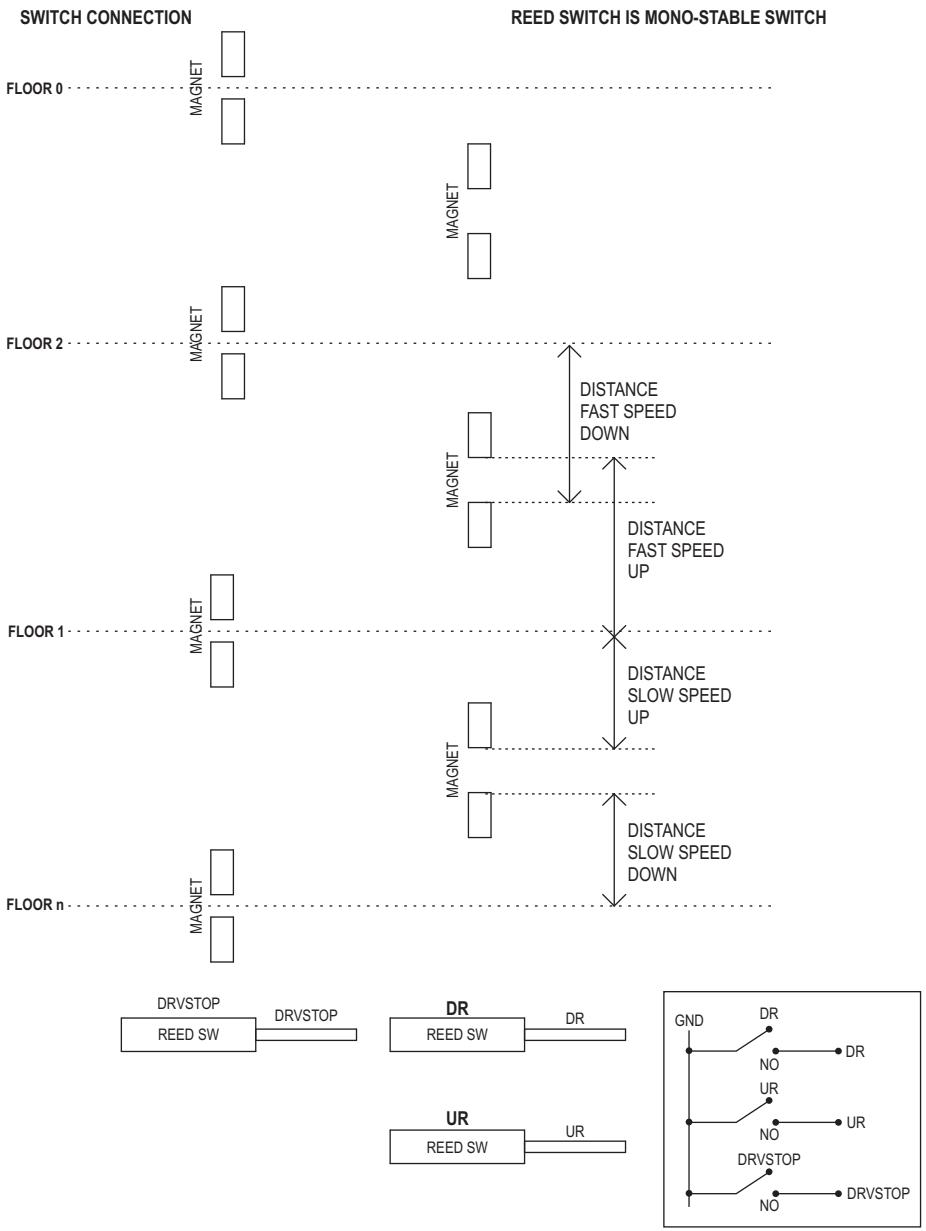


AD009 : RELAY CARD + SAFETY CIRCUIT



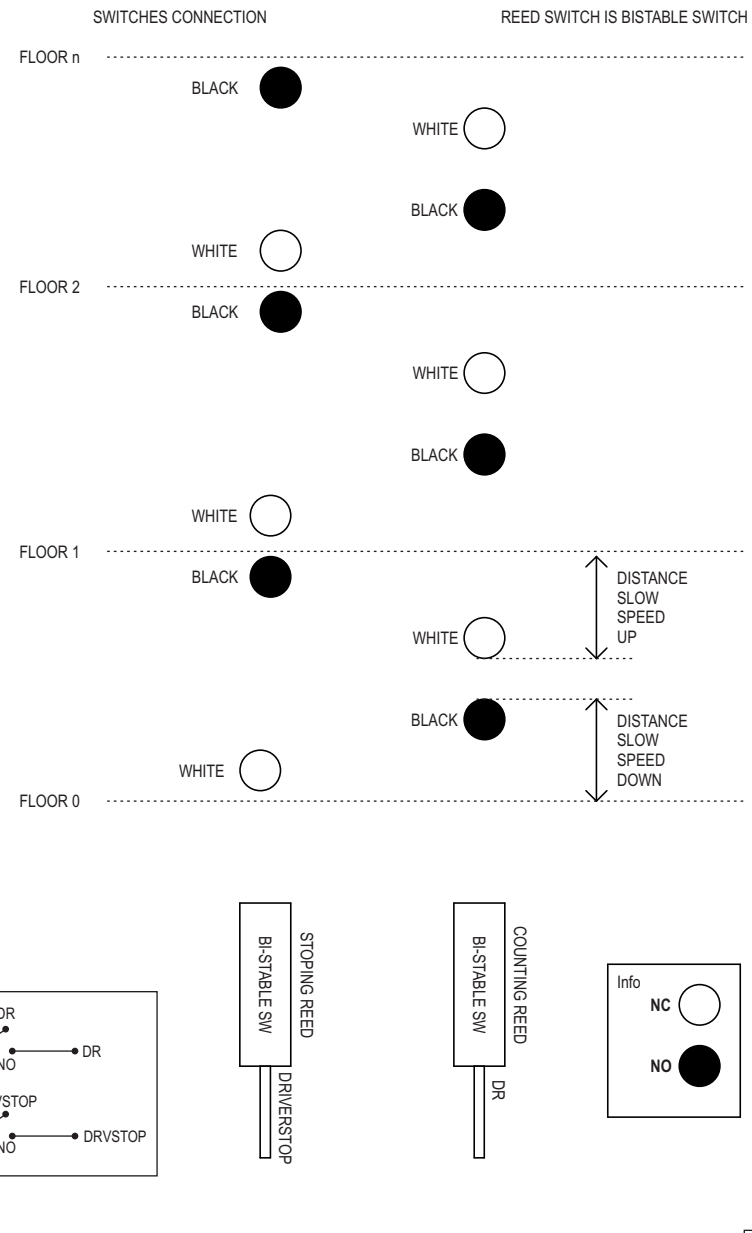
AD009 : CABIN TOP REED SIGNAL & MAGNET

AD009 : Cabin Top Reed Signal & Magnet

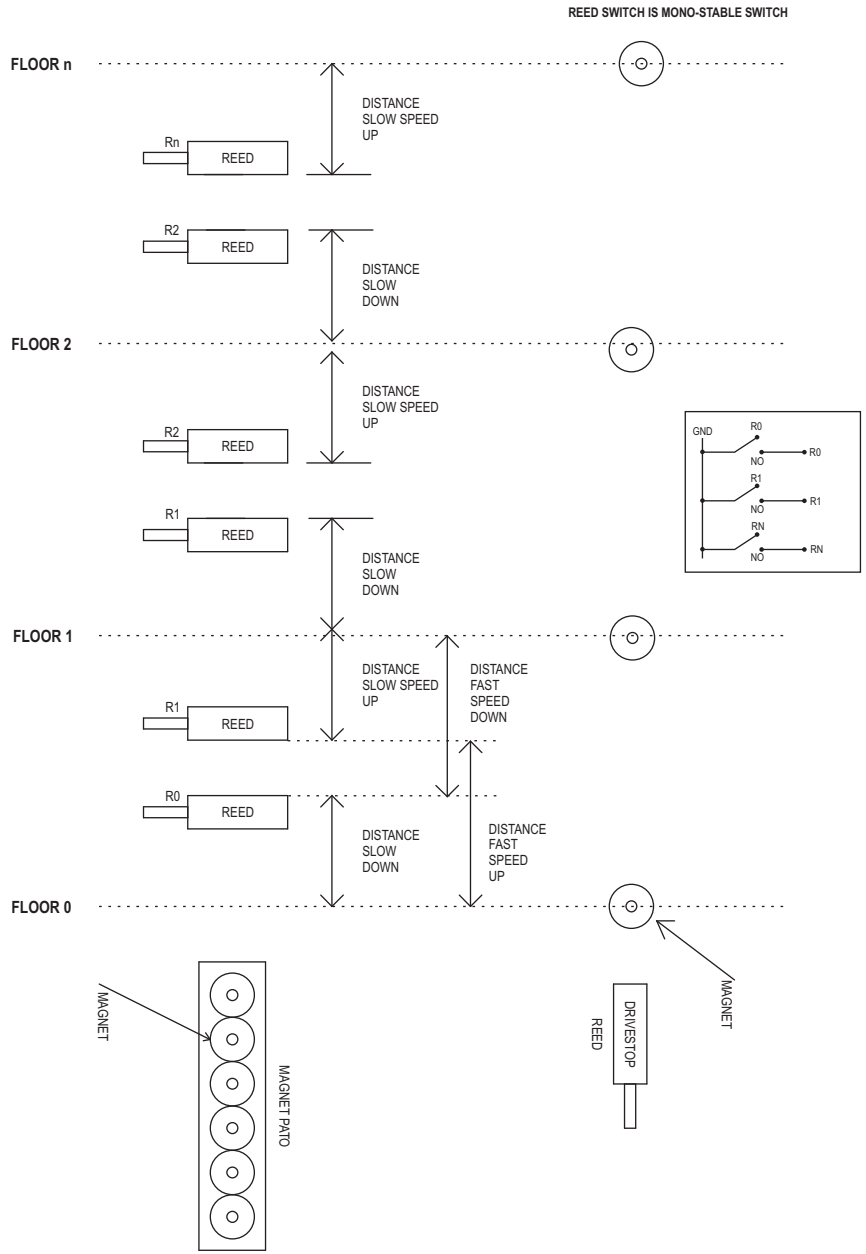


AD009 : BI-STABLE SWITCH & MAGNET

Ad013 : Bi-stable Switch & Magnet

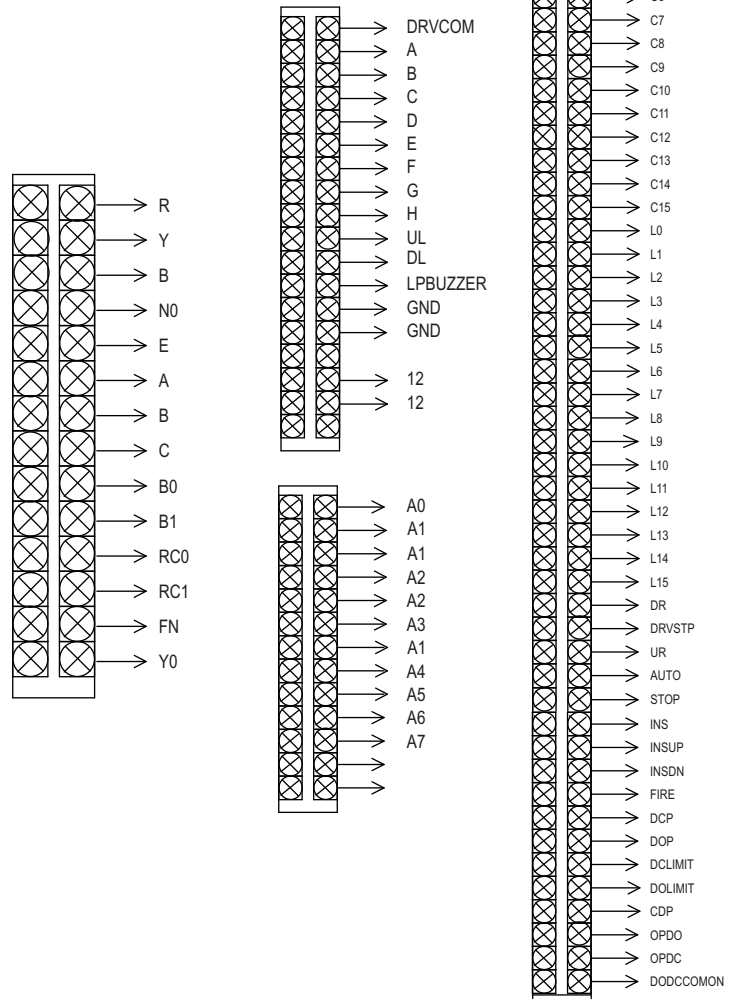


AD009 EVERY FLOOR REED SIGNAL



AD009 EVERY FLOOR REED SIGNAL

AD009 : CONNECTOR STRIP



AD009 : CONNECTOR STRIP

RELAY CARD FOR REGULAR AND TWO SPEED

RELAY CARD FOR REGULAR AND TWO SPEED

No	Coil Connection	No Contact	Connection
1	DFC2	18	DNC
2	UFC2	19	UPC
3	DFC1	20	SSPEED
4	UFC1	21	SSPEEDNC
5	SSPEED	22	A3
6	INS	23	0110
7	IL2	24	A2
8	CIL	25	CN
9	CAM	26	SSPEED NO
10		27	
11	DND	28	
12	UPD	29	
13	FAN	30	
14	DO	31	
15	DC	32	
16	BPOINT	33	
17	+12V	34	FN
		35	N0
		36	MN
		37	DL
		38	UL
		39	GND

Note:
- If DFC1 and UFC1 NC Give Jumper between SSPEED and SSPEED NC
- If DFC1 and UFC1 NO Give Jumper between SSPEED and SSPEED NO
- From the MN Operate Main Contactor

RELAY CARD FOR V3F AND AUTO DOOR DRIVE

RELAY CARD FOR V3F AND AUTO DOOR DRIVE

No	Coil Connection	No Contact	Connection
1	DFC2	18	DNC
2	UFC2	19	UPC
3	DFC1	20	SSPEED
4	UFC1	21	SSPEED NC
5	SSPEED	22	A3
6	INS	23	DRVCOM
7	IL2	24	A2
8	CIL	25	CN
9	CAM	26	SP2
10		27	SSPEED NO
11	DND	28	
12	UPD	29	0110
13	FAN	30	BP
14	DO	31	OPDC
15	DC	32	OPDO
16	BPOINT	33	DODCCOM
17	+12V	34	FN
		35	N0
		36	MN
		37	DL
		38	UL
		39	GND

Note:
- If DFC1 and UFC1 NC Give Jumper between SSPEED and SSPEED NC
- If DFC1 and UFC1 NO Give Jumper between SSPEED and SSPEED NO
- From the MN Operate Main Contactor

NOTE

NOTE

NOTE