USER'S MANUAL

Contents

Chapter 1 Operation instruction

1.1 Safety-related marking instruction

Please read the operation instruction carefully before the elevator integrated controller being installed, wrung, operated and checked. Please follow the contents of the operation instruction and local standards to install the elevator integrated controller.

The following markings are used in the instruction to indicate that this part of the instruction is important regarding safety. Failure to observe these precautions may result in death or serious injury and damage to this product, related machine and systems.

Danger: If operated incorrectly, it could result in death or serious injury.

Attention： If operated incorrectly, it could result in slight injury or damage to the equipment.

1.2 Safety precautions

Attention
■ Don't install the elevator integrated controller if you find water in the elevator integrated controller, missing parts, or damaged parts when opening the case!
■ Hold the bottom of the housing when handling.
■ Install the elevator integrated controller on a non-flammable object such as metal.
■ Install the elevator integrated controller on an object with sufficient load-bearing capacity.
■ Install the elevator integrated controller in a place with little vibration and out of direct sunlight.
■ Don't install the elevator controller in a place where liquids such as water or raindrops can splash onto it.
■ Don't drop conductive objects such as metal inside the elevator integrated

controller.

- Don't touch the heat sink of the elevator controller as it generates high temperature.Don't replace the cooling fan until the heat sink has cooled down sufficiently after 15 minutes or more from the time the power is turned off.
- Don't touch the braking resistor until the power is turned off.
- The control board uses CMOS integrated circuits, so be sure to handle it with care.

Danger

- Check whether the input power is disconnected or not before wiring.
- Request a professional electrical engineer to perform the wiring.
- Make sure that the protective earth terminal E of the elevator controller is securely grounded.
- Don't connect the input power to the output terminals U, V, and W.
- Don't connect the brake resistor to the output terminals U, V, and W.
- Don't connect the brake resistor to terminals other than terminals B1 and P.
- The encoder must be connected with shielded wires.
- The encoder must be connected with a shielded cable and the shield must be securely grounded at one end!
- Check the safety conditions around the motor and the elevator before performing self-learning.
- Please remove the wire rope before performing the rotary self-learning.
- Dangerous high voltage still exists inside the elevator integrated drive controller for a period of time after the power is cut off. Don't open the cover or touch the terminals, and perform maintenance and inspection only after confirming that the bus voltage indicator is extinguished.
- Don't carry electricity to repair and maintain the equipment. Otherwise, there is a danger of electric shock!
- Don't modify the elevator integrated controller by yourself.

Chapter 2 Product information

2.1 Model description

2.1.1 The model naming rules of LDC1000B series elevator integrated drive controllers are shown in figure 2.1:

LDC1000B - 4 018

Series name

Code name	Voltage level
2	200 class
4	400 class

Code name	Adaptive motor power
005	5.5kw
007	7.5kw
011	11kw
015	15kw
018	18.5kw
022	22kw
030	30kw
037	37kw
045	45kw
055	55kw
075	75kw

Figure 2.1

2.1.2 Model list of LDC1000B series elevator integrated drive controller:

Model Number	Rated Capacity （VA）	Rated Output Current（A）	Adapted Motor （kW）
LDC1000B-4005	11.3	14.8	5.5
LDC1000B-4007	13.7	18	7.5
LDC1000B-4011	18.3	24	11
LDC1000B-4015	24	31	15
LDC1000B-4018	30	39	18.5
LDC1000B-4022	34	45	22
LDC1000B-4030	48	60	30
LDC1000B-4037	58	75	37
LDC1000B-4045	69	91	45
LDC1000B-4055	81	112	55
LDC1000B-4075	100	150	75

2.2 Specification

Item		Specification										
Number：LDC1000B		4005	4007	4011	4015	4018	4022	4030	4037	4045	4055	4075
Maximum applicable motor capacity （kW）		5.5	7.5	11	15	18.5	22	30	37	45	55	75
Output	Rated output capacity （KVA）	11.3	13.7	18.3	24	30	34	48	58	69	81	100

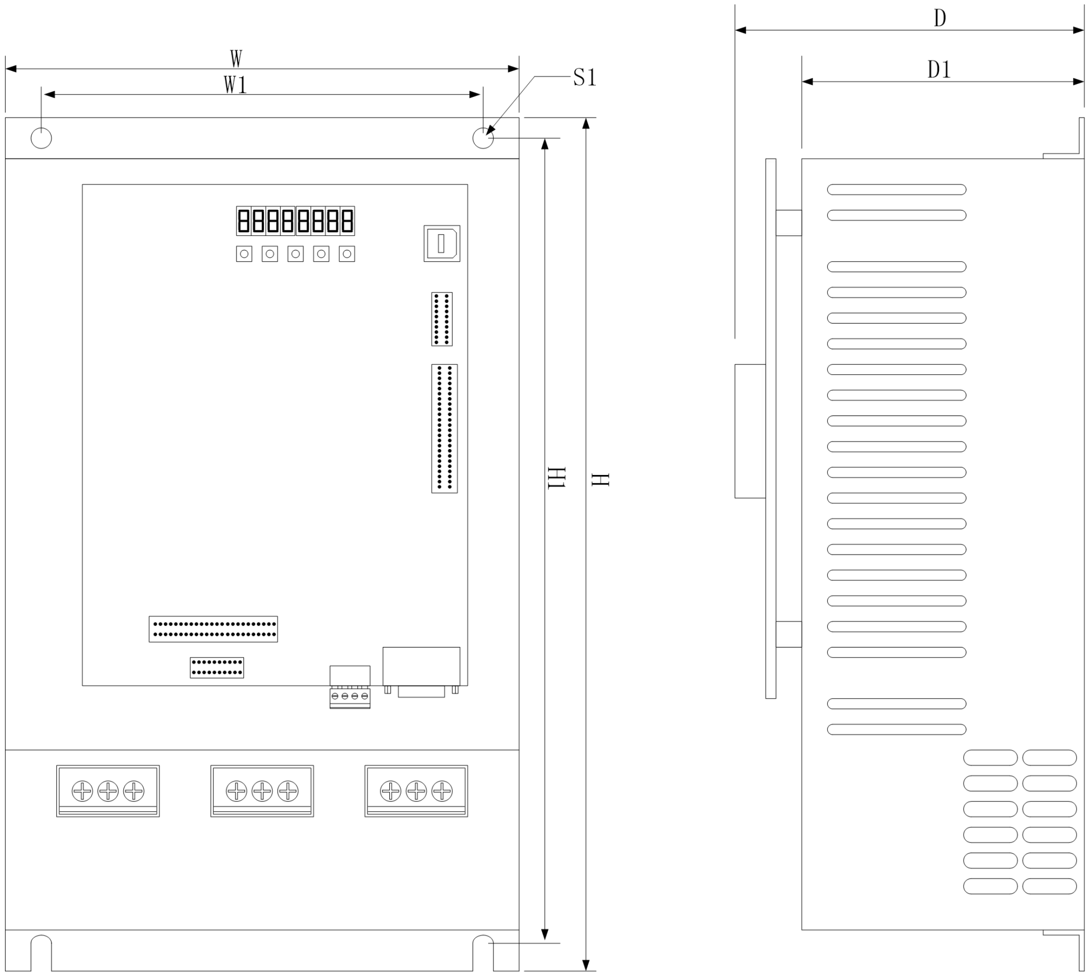
<table>
<tr><td rowspan="5"></td><td>Rated output current（A）</td><td>14.8</td><td>18</td><td>24</td><td>31</td><td>39</td><td>45</td><td>60</td><td>75</td><td>91</td><td>112</td><td>150</td></tr>
<tr><td>Overload tolerance</td><td colspan="11">150% of rated output current for 60 seconds</td></tr>
<tr><td>Carrier frequency</td><td colspan="11">2 ～ 15kHz(This parameter can be changed. Excessive carrier frequency may affect module life)</td></tr>
<tr><td>Maximum output voltage（V）</td><td colspan="11">Three-phase 380 ~ 440V (corresponding input voltage)</td></tr>
<tr><td>Maximum output frequency（Hz）</td><td colspan="11">120Hz (The parameter can be changed.)</td></tr>
<tr><td rowspan="5">Output</td><td>Rated input current（A）</td><td colspan="2">15</td><td>20</td><td colspan="2">29</td><td>39</td><td colspan="2">43</td><td>44</td><td colspan="2">58</td></tr>
<tr><td>Power supply equipment capacity（KVA）</td><td colspan="2">14.6</td><td>19.2</td><td colspan="2">28.4</td><td>37.5</td><td colspan="2">39.3</td><td>46.6</td><td colspan="2">53</td></tr>
<tr><td>Rated voltage, rated frequency</td><td colspan="11">AC: Three-phase 380 ~ 440V50/60Hz</td></tr>
<tr><td>Allowable voltage fluctuation</td><td colspan="11">-15 ～ 10%</td></tr>
<tr><td>Allow frequency fluctuation</td><td colspan="11">± 5%</td></tr>
<tr><td rowspan="6">Basic characteristics</td><td>Maximum floor</td><td colspan="11">Sixty-fourth floor</td></tr>
<tr><td>Operating speed of the elevator</td><td colspan="11">≤6.00m/s</td></tr>
<tr><td>The number of group controls</td><td colspan="11">≤8 sets</td></tr>
<tr><td>Communication methods</td><td colspan="11">CAN,RS485HVG bus serial communication</td></tr>
<tr><td>Applicable elevator types</td><td colspan="11">Passenger elevator, residential elevator,ward elevator, observation elevator, freight elevator</td></tr>
<tr><td>Applicable hosts</td><td colspan="11">Geared asynchronous traction machine, gearless permanent magnet synchronous traction machine</td></tr>
<tr><td rowspan="8">Control characteristics</td><td>Controlling methods</td><td colspan="11">With PG vector control, PM with PG vector control</td></tr>
<tr><td>Frequency control range</td><td colspan="11">0.01 ～ 120Hz</td></tr>
<tr><td>Frequency accuracy(temperature fluctuation)</td><td colspan="11">Within ± 0.01% （-10 ～ +40°C）</td></tr>
<tr><td>Starting torque</td><td colspan="11">200%/0min-1</td></tr>
<tr><td>Speed control range</td><td colspan="11">1 ： 1500</td></tr>
<tr><td>Speed control Precision</td><td colspan="11">± 0.2% （25°C ± 10°C）</td></tr>
<tr><td>Torque limit</td><td colspan="11">Yes</td></tr>
<tr><td>Accelerating and</td><td colspan="11">0.0 ～ 25.0 seconds</td></tr>
</table>

	decelerating speed	
	Braking torque	About 125% when using the brake option
	Main Controls/Functions	Feedforward control, zero servo function, over-torque detection, torque limit, speed command, acceleration and deceleration switching, S-word acceleration and deceleration, self-learning, cooling fan ON/OFF function, start without load compensation, load compensation, base lock, internal braking, automatic fault reset, parameter copy, start time / Dc braking at stop, energy saving control, fault retry, short floor, light load direction search function, repair operation, anti-slip function, emergency operation using backup power supply, etc
Control input/output interface	Low-voltage Opto-coupler-isolated input	24 switches
	High-voltage Opto-coupler-isolated input	3 switches
	Programmable relay output	8 switches; Normally open contact, single pole single throw; Contact capacity 5A / 30VDC, 5A / 250VAC
	Serial communication interface	3 channels (parallel or group control, car communication, outbound communication)
	Digital operator interface	Handheld operator, onboard 7-segment LED
Main protection function	Motor protection	Use electronic thermal relay protection
	Instantaneous over-current protection	Stop when the rated output current is more than 200%
	Overload protection	Stop at 150% of rated output current for 60 seconds
	Over-voltage protection	400V level: Stop when the main circuit DC voltage is about 820V or more
	Low-voltage protection	400V level: Stop when the main circuit DC voltage is below 380V
	Heat sink overheating Protection	Protected by a thermistor
	Stall prevention	Prevent stall during acceleration
	PG fault protection	PG Protection when the line is broken or out of phase
	Self-learning protection	Motor parameters self-learning abnormal protection
	Out-of-phase protection	Protection when I/O is out of phase
	Runtime Protection	Single run time exceeds the limit value protection

	Shaft Self-learning Fault Protection	Well self-learning protection in case of failure
Display	English and Chinese LCDS	Menu of different levels
Structure	Cooling Methods	Forced air cooling
	Installation method	Built-in or hanging installation
Environment	Installation place	Indoor (free of corrosive gases, flammable gases, dust and direct sunlight)
	Environment Temperature	-10 ～ 50°C
	Humidity	Less than 95%RH (no condensation)
	Preservation Temperature	-20 ~ 60°C (short time temperature during transportation, etc.)
	Altitude	Below 1000m
	Vibration	Below 10 ~ 20Hz: 9.8m/s2 Below 20 ~ 55Hz: 5.9m/s2

2.3 Appearance size and quality

The appearance of LDC1000B series elevator integrated drive controller is divided into two types: closed wall hanging type and cabinet installation type, and its installation size and quality are as follows:



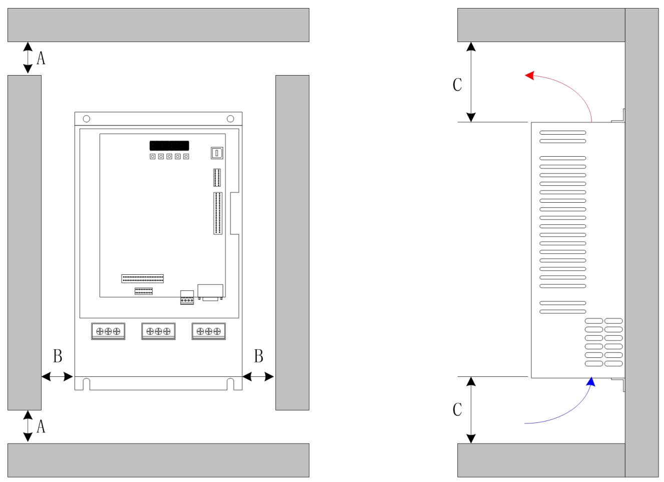
Model number LDC1000B	Overall dimension							
	W	H	D1	D	W1	H1	S1	Gross weight（kg）
4005	223.0	375.0	135.0	171.0	176.0	355.5	Ø7	8.30
4007	223.0	375.0	135.0	171.0	176.0	355.5	Ø7	8.70
4011	223.0	375.0	135.0	171.0	176.0	355.5	Ø7	9.10
4015	223.0	375.0	135.0	171.0	176.0	355.5	Ø7	9.50
4018	263.0	392.5	142.5	178.5	216.0	373.0	Ø7	12.45
4022	263.0	392.5	142.5	178.5	216.0	373.0	Ø7	12.85
4030	263.0	392.5	142.5	178.5	216.0	373.0	Ø7	15.00
4037	283.0	469.5	162.0	198.0	236.0	450.0	Ø7	
4045	374.0	588.0	191.5	227.5	276.0	568.5	Ø7	
4055	374.0	588.0	191.5	227.5	276.0	568.5	Ø7	
4075	484.0	698.0	250.0	286.0	386.0	678.5	Ø7	

2.4 Brake resistance configuration

LDC1000B series elevator integrated controller has a built-in brake unit, only need to be equipped with a suitable brake resistance (≤22kw). The resistance value and power of the configured resistor vary according to the power level.

Model number	Adaptive motor (KW)	Brake resistance specification (Ω / W)
LDC1000B-4005	5.5	75Ω /2250W
LDC1000B-4007	7.5	75Ω /2250W
LDC1000B-4011	11	50Ω /4500W
LDC1000B-4015	15	33Ω / 6750W
LDC1000B-4018	18.5	25Ω / 6750W
LDC1000B-4022	22	19Ω /9000W
LDC1000B-4030	30	19Ω / 9000W
LDC1000B-4037	37	14Ω / 12000W
LDC1000B-4045	45	13Ω / 18000W
LDC1000B-4055	55	10Ω / 24000W
LDC1000B-4075	75	6.8Ω / 36000W

2.5 Installation space requirements

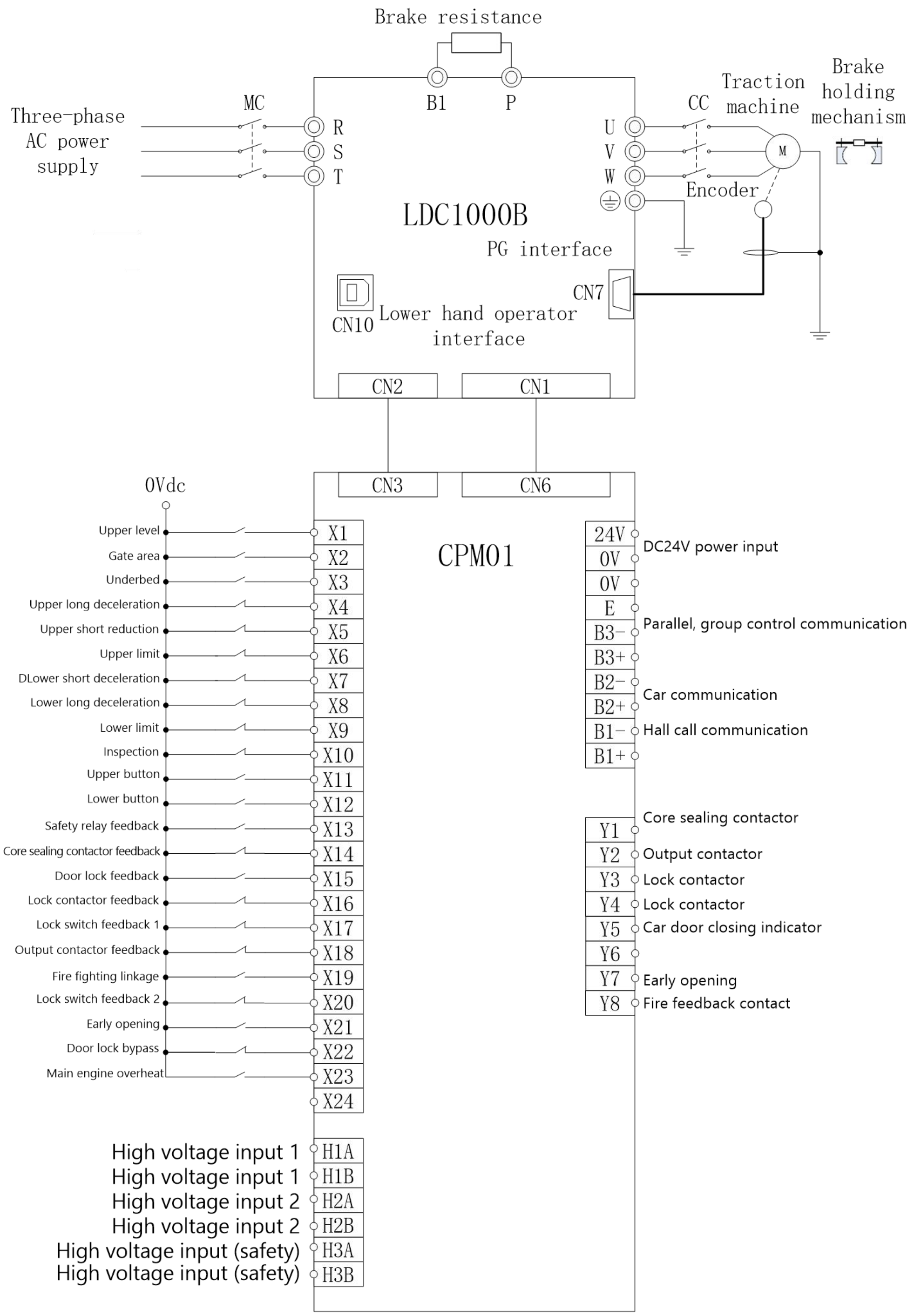


2.6 PG card selection

Encoder	Adaptive Motor	PG Card
12V push-pull /OC output encoder	Asynchronous machine	Come with (CN6 plug)
Sine-cosine encoder	Synchronous machine	Come with (CN7 plug)

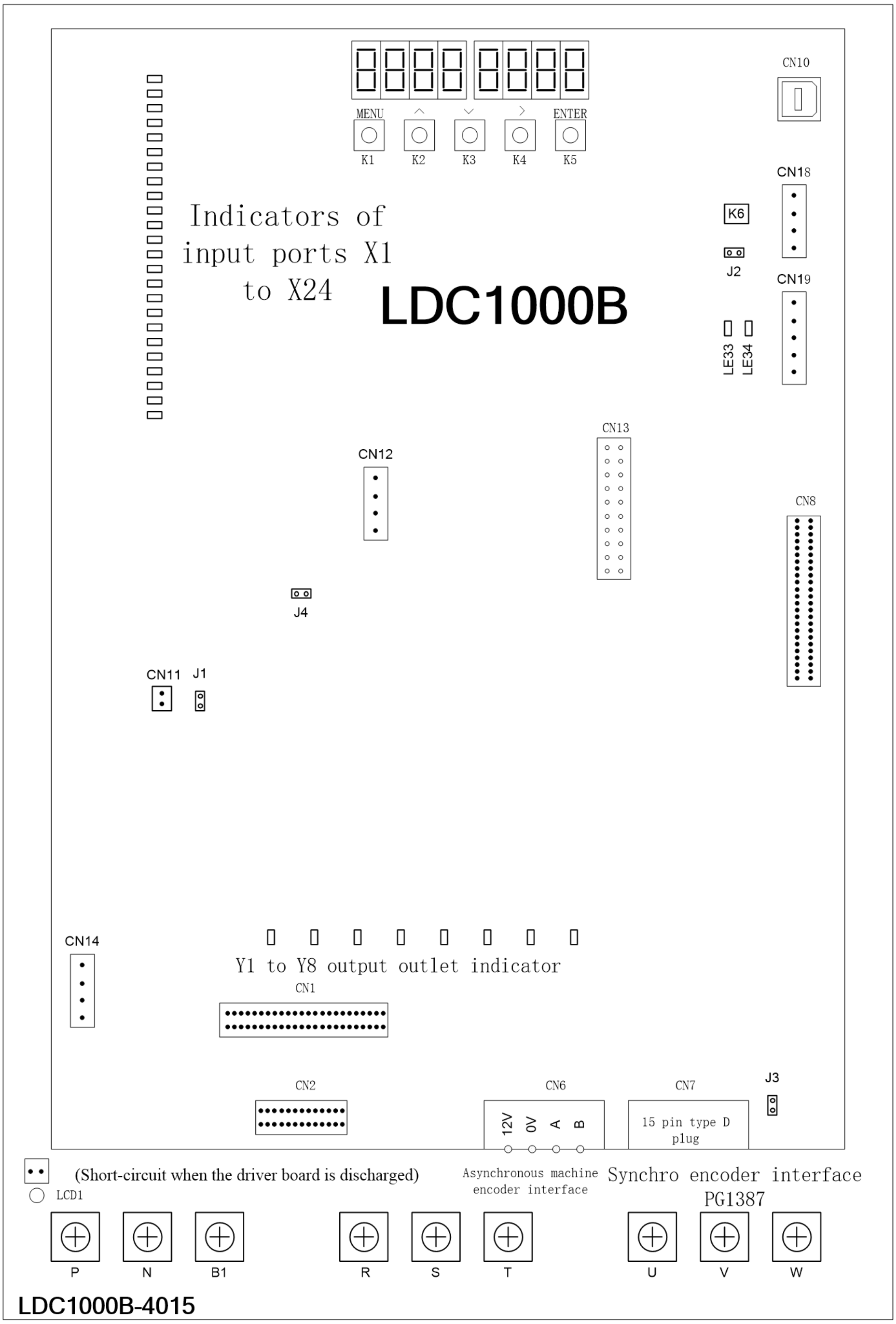
Chapter 3 Wiring

3.1 Wiring diagram



3.2 Control loop ports and wiring

System ports and layout



3.3 Description of each port

3.3.1 Main control unit input signal indicators X1 to X24 are described as follows:

Port Number	Definition
X1	Doorstop area
X2	Gate area
X3	Lower gateway
X4	Lower short deceleration
X5	Lower long deceleration
X6	Upper limit
X7	Lower short deceleration
X8	Lower long deceleration
X9	Lower limit
X10	Overhaul
X11	Up button
X12	Down bottom
X13	Safety
X14	Core sealing contactor feedback
X15	Door lock
X16	Lock contactor feedback
X17	Lock switch feedback 1
X18	Output contactor feedback
X19	Fire fighting linkage
X20	Lock switch feedback 2
X21	Early opening
X22	Door lock bypass
X23	Main engine overheat
X24	Manufacturer's reservation

3.3.2 The description of the Y1 to Y8 output signals of the main control unit is as follows:

Port Number	Definition
Y1	The core sealing contactor controls the output
Y2	Output contactor controls output
Y3	Lock contactor control output
Y4	Lock strong excitation control output
Y5	Car door closing indicator
Y6	Standby
Y7	Early opening
Y8	Fire feedback

3.3.3 CN1 and CN2 are cable ports connected to the CPM01K board.

3.3.4 CN6 is the encoder interface of asynchronous machine.

CN7 is the encoder interface of synchronous machine.

CN8 is the interface connecting the control board and the driver board.

CN10 is a handheld operator interface.

CN14 is a multifunctional 485 communication interface. CN11, CN12, CN13, CN18, and CN19 reserve interfaces for the system.

3.3.5 LE33 indicates the normal working indicator of the driver board.

LE34 is the discharge indicator of the brake unit.

LCD1 is the DC bus power indicator Remove R, S, T, U, V, W, B1, and P terminals only after they are off.

3.3.6 K6 is the system reset key. After you press this key, the system restarts.

3.3.7 J1 is a resistance jumper for parallel communication terminals. It needs to be connected in parallel. In teamwork control, only two terminals need to be connected.

J3 is the grounding jumper for the encoder plug housing. When jumping, the CN7 encoder D-type plug housing is grounded(generally no connection is required).

J2 and J4 are system jump pins reserved by the manufacturer.

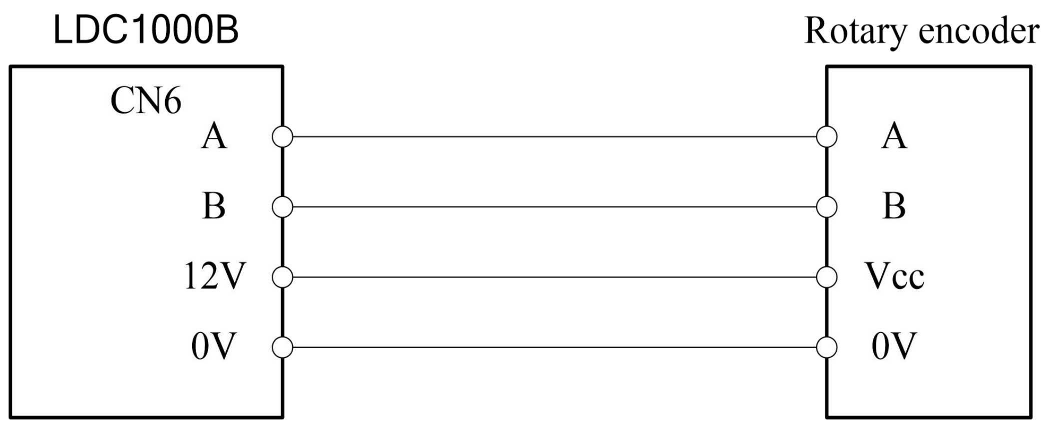
3.3.8 R, S, T main circuit power input terminals.

U, V, and W are driver output terminals.

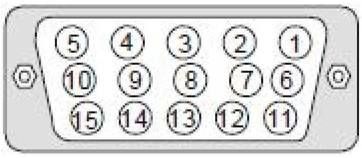
B1 and P are brake resistor connection terminals.

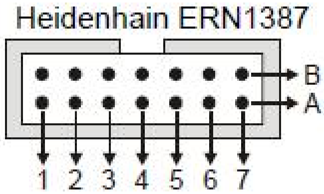
3.4 Connecting cables to PG cards

3.4.1 Asynchronous motor 12V push-pull /OC output encoder connection diagram



3.4.2 Synchronous motor sine and cosine encoder (Heidenhain 1387) connection diagram





Terminal Number	Terminal Name	Terminal Number	Terminal Name
1	B-	5A	B-
2	-	-	-
3	R+	4B	R+
4	R-	4A	R-
5	A+	6B	A+
6	A-	2A	A-
7	0V	5B	0V
8	B+	3B	B+
9	+5V	1B	UP
10	C-	1A	C-
11	C+	7B	C+
12	D+	2B	D+
13	D-	6A	D-
14	-	-	-
15	-	-	-

Chapter 4 Menu interface of the LDC1000B

The menu interface of LDC1000B can be divided into two main menus: Initialization and Application. The Application menu has four main menus: Call Test, Fault Record, Parameter Adjustment, and Status Monitoring. The operation and description of each menu are described in the following section. In order to be more convenient and intuitive to operate system state and all menus, users can choose the LCD operator in Chinese and English for debugging, maintenance and monitoring operations. The following describes the menu operation of the LCD operator.

4.1 LCD Menu operation

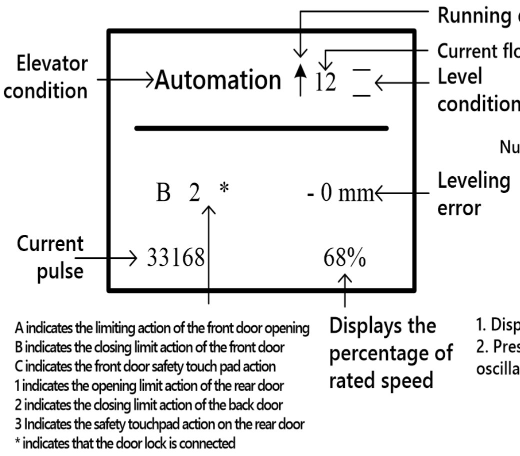
4.1.1 Key definition of LCD operator

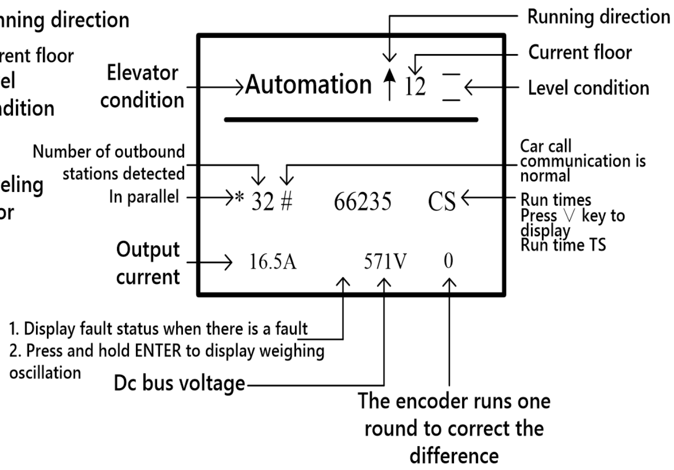
Key	Instruction
MENU	Return to the main menu, switch between menus, return to the upper-level menu, cancel key.
∧	Page up key, add one key when setting parameters; Some menu cursor movement.
∨	Scroll down key, subtract one key when setting parameters; Some menu cursor movement.
＞	Move the cursor to the right, press this key in the initial state to enter the monitoring screen, and press this key in the call menu to add one to the tens place.
ENTER	Confirm key. It is used to confirm the entry of the menu and confirm the setting of parameters.
F1	Multi-function key.

Note: The K6 button on the LDC1000B board is the system reset button, which is used for restarting the system without power failure.

4.1.2 LCD menu and initialization menu interface

When the system is powered on, product information is displayed in the initialization stage by default. You can customize the user interface to be displayed during the initialization process. After the initialization is complete, the initialization interface menu is displayed: International Menu→ MENU →Application→ MENU→International Menu→ ＞→Monitor-Input to the main board→ MENU→International Menu. The initialization interface In the initialization interface, ∧ and ∨ switch between initialization interface 1 and initialization interface 2(In the automatic state of the elevator and its description are as follows).





Initialize interface 1 Initialize interface 2

■ LCD operator initialization display instructions:

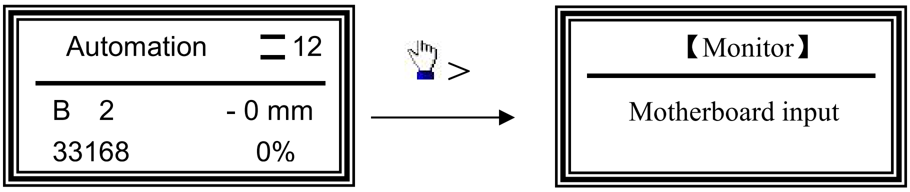
State Type	Display the contents	Definition
Elevator State	Self Learn	The shaft is displayed when it is in motor tuning.
	INSP	The elevator is in service switch operation state.
	FIRE	After the fire switch is activated, the elevator enters the fire fighting state.
	LOCK	After the fire switch is activated, the elevator enters the fire fighting state.
	Overload	Overload switch operation.
	Not Learn	The access switch is automatic, but it has never been displayed when the well is self-learning.
	USED	After special switch action.
	Driver	After the driver switch action, the elevator enters the driver state.
	DoorDis	If the elevator is set to access control, the elevator enters the access control state. (Used during debugging)
	TEST	After starting the test run, the elevator enters the test state. (Used during debugging)
	AUTO	The elevator is in normal automatic operation state.
	Emergency	“Emergency Operation”input point after action.
	Earthquake	“Seismic Input” input point after action.
	"INS wait	After Security Maintenance is set to 1 in parameter B8, the maintenance becomes normal and the door lock is not disconnected once.
	Full load	Full load switch action.
	SRes Run	
	BrakeTest	Automatic detection of brake torque.
	UCMP Test	UCMP manual test.
	OLoad SH	Overload manual shorting at L08 parameter.
	Door SH	When the lock bypass device shortens the lock.
	DoorSH Err	Enter bypass state when closing the door limit action.

	INS EnhPOW	When the starting torque of maintenance is enhanced. (For 125% wire rope slip test)
	AUTO Level	Operating when running anti-level.
	OverHeat 1	Host Overheat input point after action.
	OverHeat 2	"Door overheat" input point after action.
	Steel Err	"Pull rope"input point after action
Fault state	According to fault code table	This line displays the drive status or current pulse and speed when there is no fault, and the fault content when there is a fault.

4.2 Operation and description of status monitoring

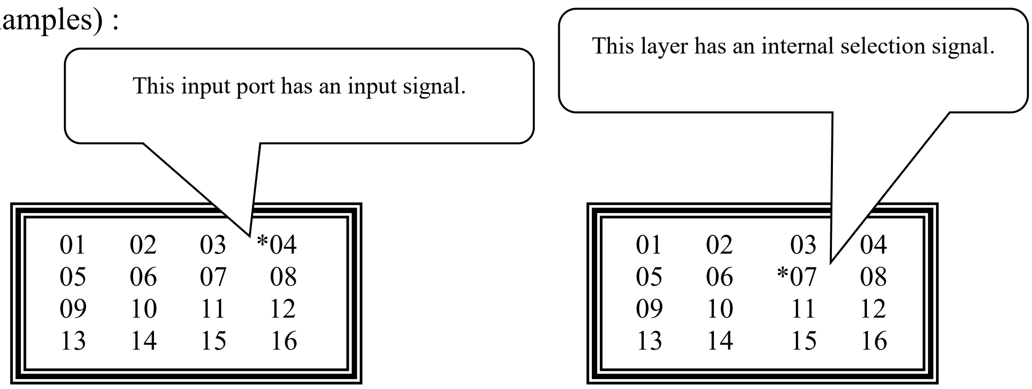
The operation of status monitoring is the direct basis for judging the quality of all ports in the system, the connection of lines and whether there is interference. The operation of this part of the menu is as follows:

4.2.1 Status monitoring menu entry and switch Under the initialization menu, press > to enter the Status Monitoring main menu.



The menu of state monitoring has 9 submenus, which are: main board input], outgoing call communication, internal call registration, upcall registration, downcall registration, car input, car output, current and voltage, data monitoring. Switching between each submenu and monitor page presses "∧" "∨" key. Entering the submenu presses "Enter" key. After entering the submenus, press MENU to return, and then press MENU to return to the initialization screen.

4.2.2 Status monitoring menu LCD display and description. The following is the LCD display of monitoring the content of each submenu and related descriptions (examples) :



◇ Mainboard input ◇ Car call registration

Motherboard input Monitoring instructions: 1 ~ 24 are input points X1 ~ X24.
33 is the hall door high voltage monitoring. 34 is the car door high voltage monitoring, 35 is the safety high voltage monitoring.
37 indicates phase A pulse monitoring, and 38 indicates phase B pulse monitor

4.2.3 Current and voltage in status monitoring menu:

Speed1:	0 %
Speed2:	0 %
Current:	0.00A
DC BUS:	568V

Speed 1 is the set speed.
Speed 2 is the feedback speed.
Current indicates the output current.
DC BUS indicates the DC bus voltage.

4.2.4 Data monitoring in the status monitoring menu:

PG AB:	160000	
PG CD:	5600	
PG Z :	100	0
PG PPR:	2048	

Zero represents the difference between the encoder running one round of correction.

1. This menu can monitor whether each phase pulse of the encoder is normal.
2. This menu is used to determine whether F21 in the B8 parameter is set correctly:

Manually open the lock gate and rotate the traction wheel in one direction. If the data of PG AB and PG CD increase or decrease at the same time, the F21 in parameter B8 is set correctly; If one of the two increases and the other decreases, modify F21 in the B8 parameter.

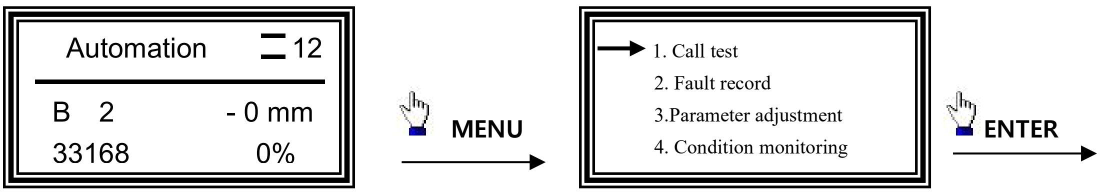
3. PG PPR indicates the number of pulses of the encoder rotating one circle (only valid for synchronous motors).

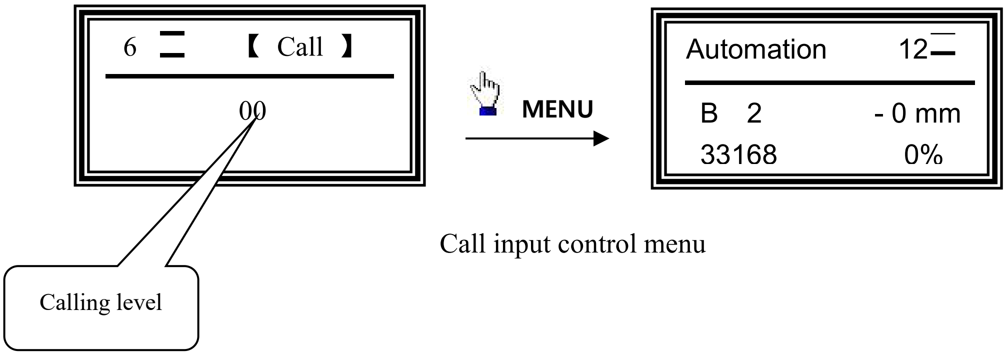
4.3 Call test menu operation and description

4.3.1 Operation of call test menu

In the initialization menu, enter the application menu, and then the "∧" or "∨" key points the arrow to call test. ENTER means when entering the call test menu and returning to the initialization menu, the MENU key returns to the initialization menu. Under call test menu, the two digits in the middle are call floor. The "∧" or "∨" key adds one or subtract one to modify the call floor number. The ">" key adds 10 to modify the call floor number. After modifying the number of floors, "ENTER" key confirms the call floor. This function is mainly used to select the floor of the machine room during debugging and maintenance.

4.3.2 Call test menu LCD display





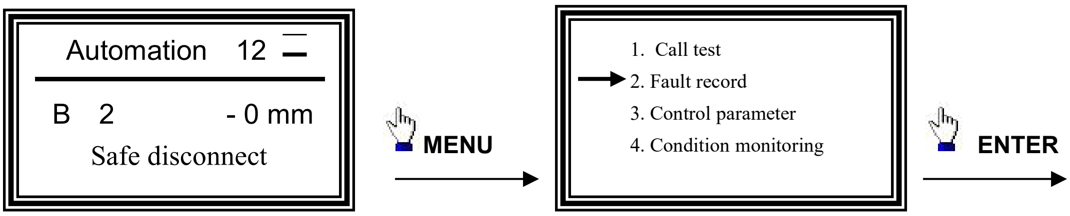
Call input control menu

4.4 Fault record menu operation and description

4.4.1 Operation of the fault record menu

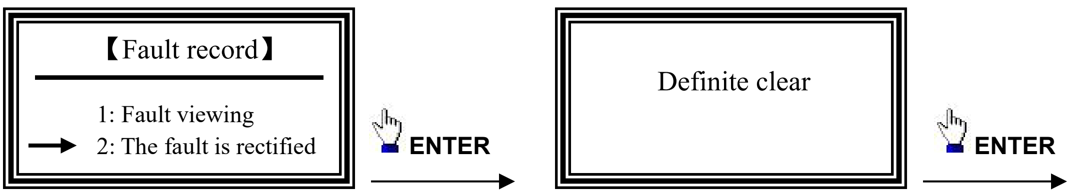
This menu is used to view historical fault records and clear fault records of the elevator. A maximum of 32 historical faults can be recorded. Under the initialization menu, enter the Application menu, and then the "∧" or "∨" key points the arrow to fault record. ENTER means when entering the fault record menu and returning to the initialization menu, the MENU key returns to the initialization menu. In this menu, press "∧" or "∨" key to select the submenu, and press "ENTER" to enter the submenu.

4.4.2 Fault record menu LCD display and description

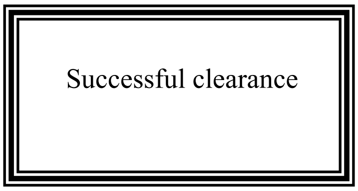


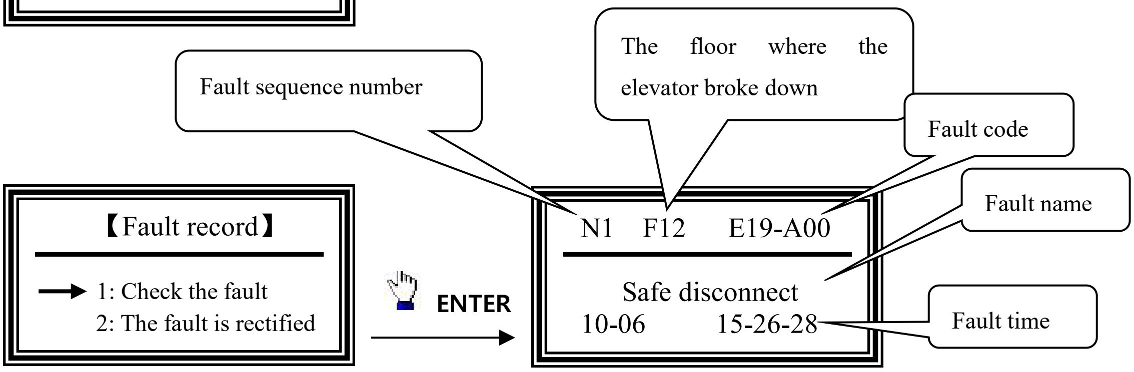
The fault is displayed during initialization 【Control Fault View】 menu

Note: If the elevator fails during operation, the current fault name will be displayed in the bottom line of the LCD operator. After the fault is removed, press "ENTER" to eliminate the fault display. If it cannot be eliminated, it means that the fault has always existed



【Fault View】 Menu 【Fault View】 Menu





【 Control Fault View 】 Menu　　【 Control Fault View 】 Menu

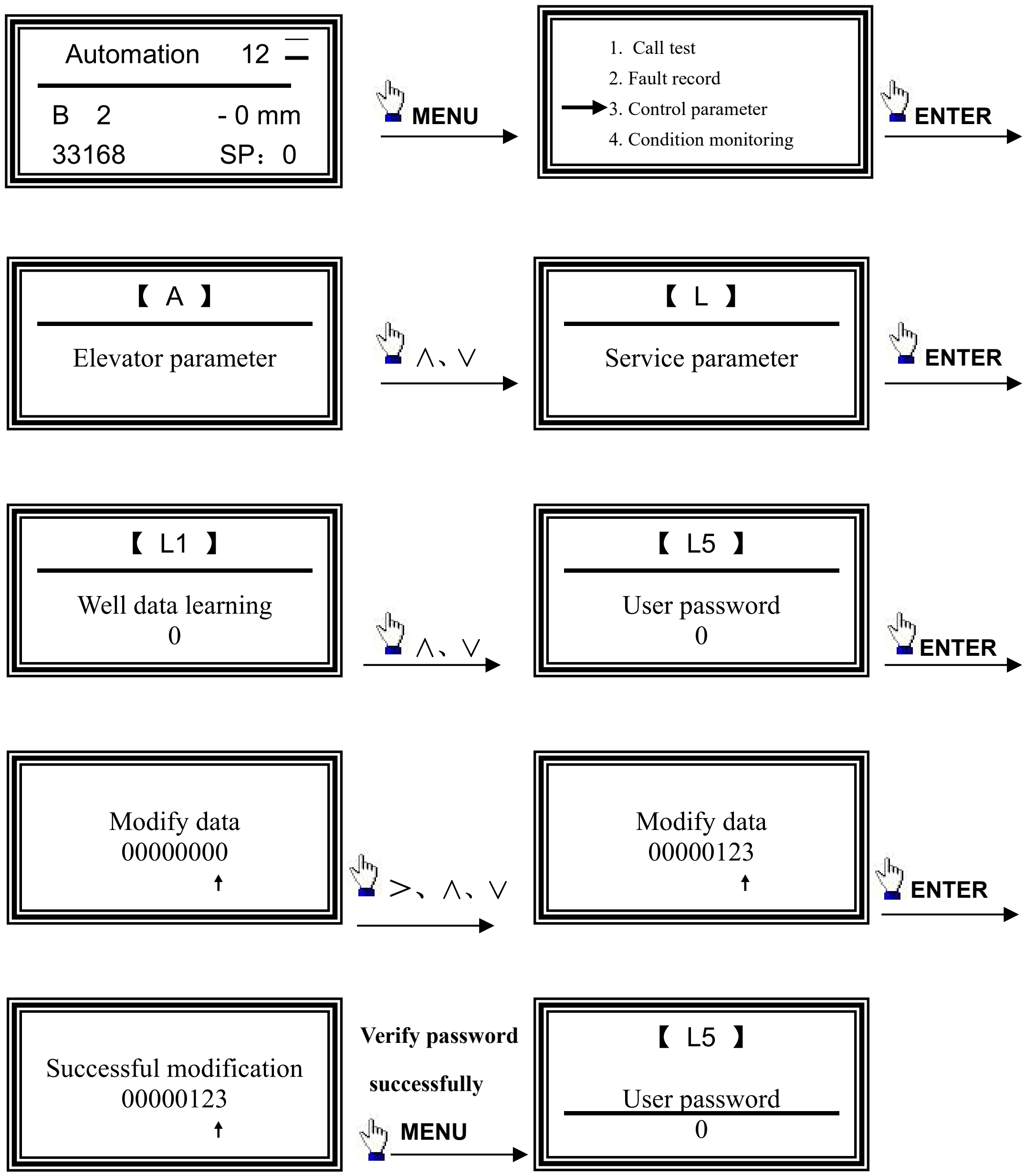
For details, see Chapter 6

4.5 Parameter adjustment menu operation and description

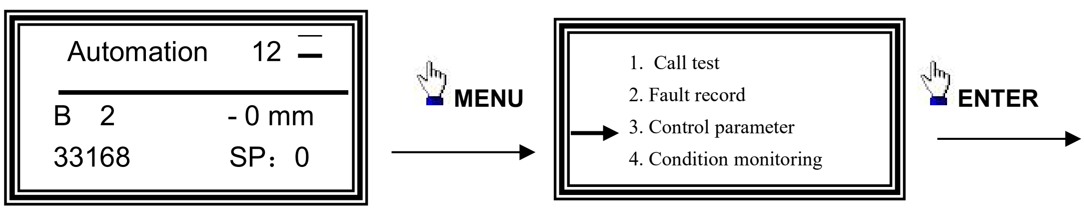
Before modifying the parameters in the parameter adjustment menu, you must enter the correct user password in the L5 parameter menu of the parameter L. After the password is verified correctly, you need to re-enter the password if the system is powered off or reset.

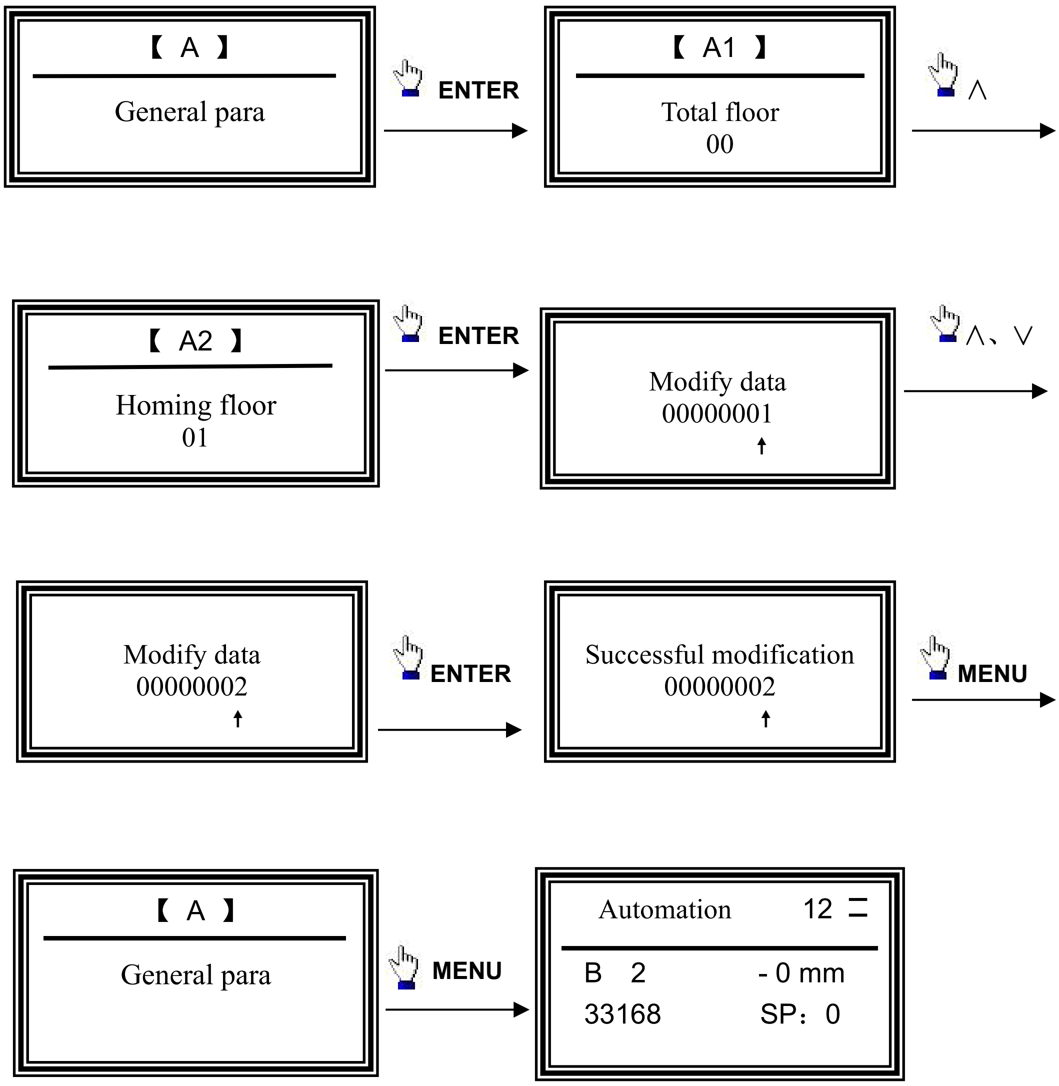
Parameter adjustment menu is the most important menu in the system, in which the realization of some functions of the elevator, the adjustment of parameters of different elevators, the debugging of the elevator, the effective level of the system input and output contacts and the change of functions are all operated. When modifying the parameters, functions and functions in this menu, you need to enter the correct user password before you can modify it successfully. User password is an eight-digit decimal number. The initial password is 00000123. In parameter adjustment, there are 12 sub-dishes in the menu: A parameter - elevator parameter, B parameter - control parameter, C parameter - time parameter, D parameter - operation parameter, E parameter - teamwork parameter, F parameter - protection parameter, H parameter - pulse parameter, J parameter -I/O port parameter, L parameter - service parameter, N parameter - motor related parameter, P parameter -PI parameter, Y parameter - system parameter. In parameter adjustment, there there are many sub-menus in each sub-menu. The following is only an example of the LCD display of different operating methods of the menu, detailed operations referring to the following flowchart.

4.5.1 Verifying the password



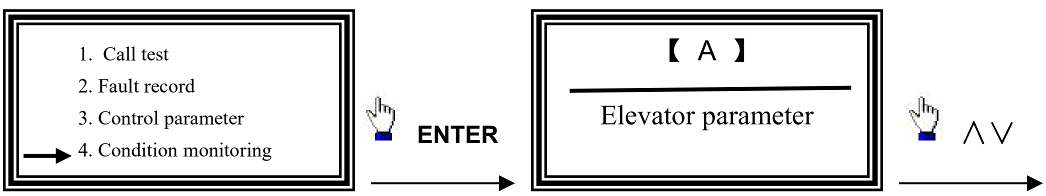
4.5.2 Parameter Adjustment Menu Common functions: A2 parameter - Waiting base station (for password input, see the previous description)

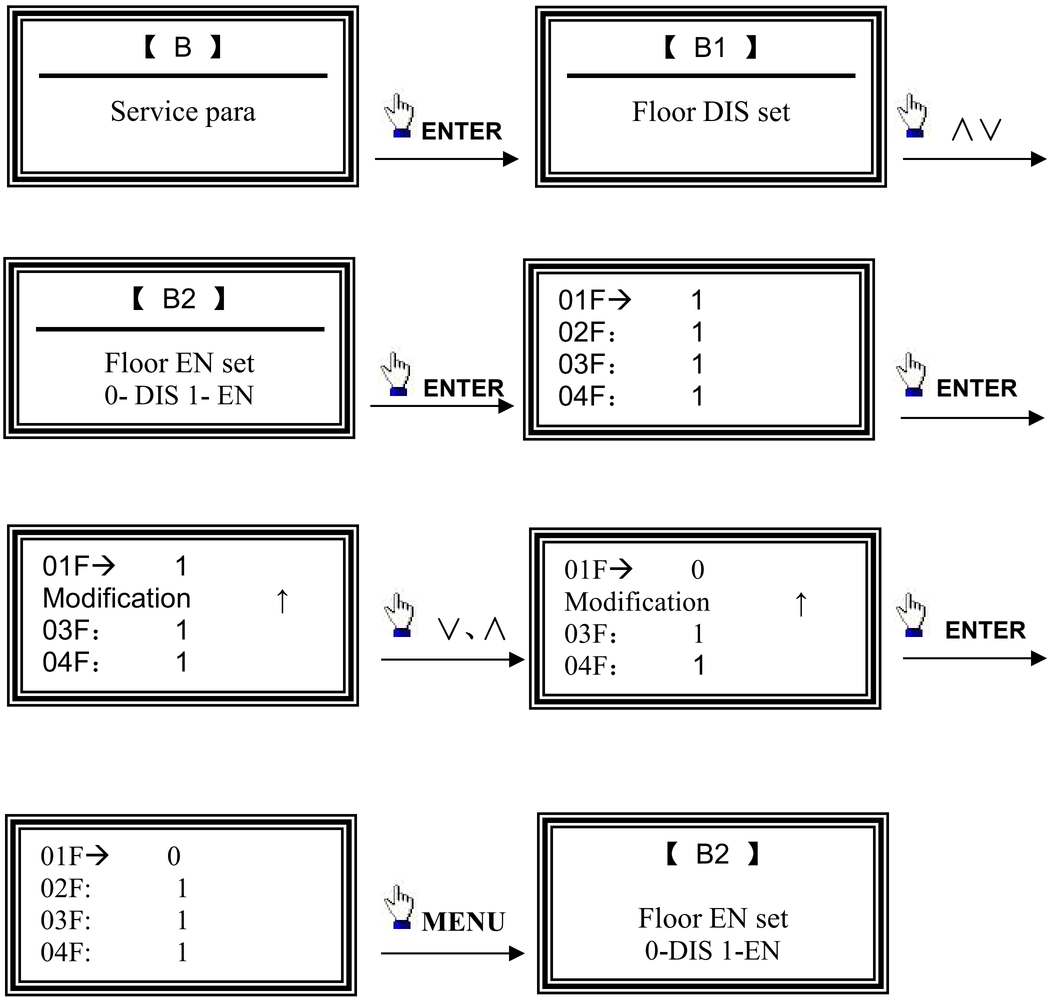




Note: Most of these operations are in parameter menu. Press menu key to exit the menu, press ∧ and ∨ key to flip the menu and add or subtract operation data, press > key to move cursor, press ENTER key to select function or confirm data.

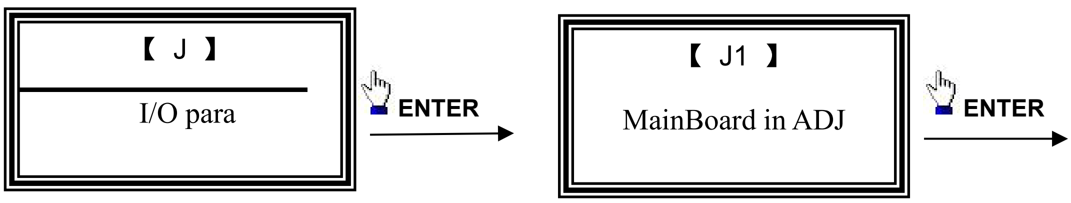
4.5.3 Parameter adjustment menu setting special functions: B2 parameter - floor allowed settings (B1 to B8 parameter settings are the same





Note: In this class MENU, press menu key to exit the menu, press ∧, ∨ key to move cursor, press > key to function And data transformation or page turning, press ENTER key to select the function or data confirmation.

4.5.4 Parameter adjustment menu set compatible functions: J1 Parameter - mainboard input setting



X1→1 0 UPL
X2: 2 0 Level
X3: 3 0 DNL
X4: 4 1 PLUX

The cursor moves one step

∧、∨ →

X2→2 0 Level
X3: 3 0 DNL
X4: 4 1 PLU
X5: 5 1 PLUX

> Key turn the page

> →

X6→6 1 ULS
X7: 7 1 PLD
X8: 8 1 PLDX
X9: 9 1 DLS

>、∧、∨ →

X21: 0 0 Non-function
X22: 0 0 Non-function
X23: 0 0 Non-function
X24: 0 0 Non-function

ENTER →

X21→0 0 Non-function
Contact point ↑
X23: 0 0 Non-function
X24: 0 0 Non-function

Normally on/off setting

∧、∨ →

X21→0 1 Non-function
Contact point ↑
X23: 0 0 Non-function
X24: 0 0 Non-function

The on/off modification is complete

> →

X21→0 1 Non-function
Function ↑
X23: 0 0 Non-function
X24: 0 0 Non-function

Numeric address increase or decrease

∧、∨ →

X21→6 1 ULS
Function ↑
X23: 0 0 Non-function
X24: 0 0 Non-function

ENTER →

X21→6 1 Success
X22: 0 0 Non-function
X23: 0 0 Non-function
X24: 0 0 Non-function

Change X21 to ULS

MENU →

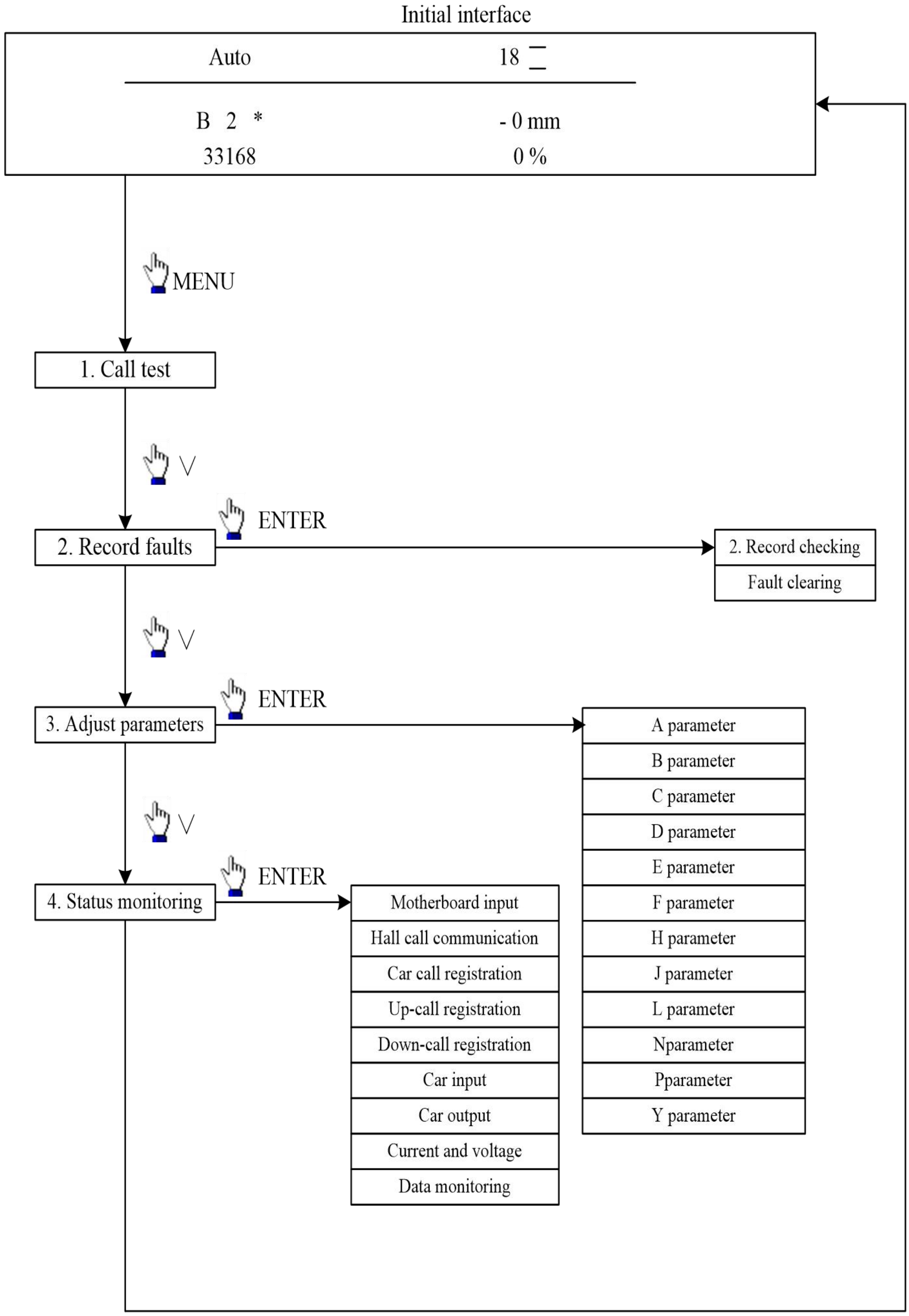
【 J1 】

Mainboard in ADJ

Chapter 5 Menu flow chart and detailed description

5.1 Menu flow chart

5.1.1 Main menu flow chart



5.1.2 Parameter adjustment flowchart

Parameter adjustment

A Elevator Parameters

A1 Total number of floors	A6 Rated speed
A2 Waiting base Station	A7 Length of leveling baffles
A3 Fire Base Station	A8 Number of leveling switches
A4 Door lock base station	A9 Series of decelerating switches
A5 Key location	A10 Fire second base station

B Control parameters

B1 floor display Settings	B7 Backdoor mode
B2 floor allows setting	B8 Function option set 1
B3 Mandatory answer Settings	B9 Function option Set 2
B4 Front door Settings	B10IC/VIP/ Timing control
B5 Rear door Settings	B11 Fire disable front door
B6 Front door mode	B12 Fire disabled back door

C Time parameter

C1 Start time sequence	C8 Energy Saving time
C2 stop timing	C9 Door operation stop delay time
C3 closing waiting time 1	C10 Open door holding time
C4 close the door wait time 2	C11 Pre-opening distance
C5 Maximum opening time	C12 Soft startup time
C6 Leveling switch delay	C19 Maintenance alarm cycle
C7 Return to base station time	

D.Running parameter

D1 Control mode	D10 High operating speed
D2 Zero speed level	D11 Low speed acceleration time
D3 Corrects the running speed	D12 Medium speed acceleration time 1
D4 Creep running speed	D13 Medium-speed acceleration time 2
D5 Crawling speed	D14 high speed acceleration time
D6 Repair running speed	D15 acceleration
D7 Low operating speed	D16Sport Acceleration
D8 Medium running speed 1	
D9 Medium running speed 2	

E Group control parameters

E1 Local address	E5 Up peak time 1
E2 floor offset	E6 Up peak time2
E3 joint control base station	E7 Down peak time1
E4 Joint control mode	E8 Down peak time2

F Protection parameters

F1 shutdown failure retry time	F5 Limit the number of system failures
F2 Number of retries to open and close the door	F6 Single run protection time
F3 drive failure reset times	F7 Low speed deviation range
F4 leveling switch detection time	

H Pulse distance parameter

Short deceleration pulse distance on H1	H6 Number of pulses of the leveling baffle
Long deceleration pulse distance on H2	H7 floor pulse view
Short deceleration pulse distance at H3	Overall adjustment of H8 leveling position
Long deceleration pulse distance at H4	H9 leveling position single-layer adjustment
Total number of H5 pulses	

J I/O port argument

J1 Mainboard Input Settings	J4 Car output Settings
J2 Mainboard output Settings	J5 Call interface Settings
J3 Car input Settings	

L Service parameters

L1 Shaft data learning	L6 Manufacturer password
L2 Test run interval	L7 Advanced parameters
L3 Data Replication	L8 Functional test
Factory data recovery of L4	
L5 User password	

N Motor related parameters

N1 Model of the driver base
N2 Motor power
N3 Motor type
N4 Power input voltage
N5 Rated voltage of motor
N6 Rated current of motor
N7 Rated motor speed
N8 Motor rated frequency
N9 Number of motor poles
N10 motor rotation direction
N11 PG card model
N12 PG pulse count
N13 PG direction
N14 PWM carrier
N15 PG Pole shift - synchronization Slip percentage - asynchronous
N16 motor parameter setting
The N17 NP group parameter is reset
N18 Magnification
N19 Phase
N20 Gain

P PI parameter

P1 low speed gain
P2 low speed integration
P3 high speed gain
P4 High speed integration
P5 weight gain
P6 Weighing integral
P7 Weighing time
P8 Mechanical inertia
P9 Brake detection torque
P10 Current loop percentage
P11 Reserved

Y System parameter

Y1Parameter level
Y2Time adjustment
Y3 language selection
Y4 Software version
Y5 sequence number
Y6 Remote Parameter Modification Authorization

5.2 Menu list for parameter adjustment:

A- General parameter menu

Serial number	Chinese name	Factory default	Unit	Range	Instructions	Level
A1	Total floor	2	floor	2-64	Total number of elevator floors = actual floors + floor offset.	≥2
A2	Homing floor	0	Floor	1-64	The floor to which the elevator returns at a scheduled time when the control is set.	≥3
A3	Fire floor	1	Floor	1-64	Set selection control when the fire status returns to the floor.	≥3
A4	Park floor	1	Floor	1-64	The electric lock is closed when the floor is returned.	≥3
A5	Key floor	1	Floor	1-64	The floor where the electric lock is located	≥3
A6	Rated speed	1	Meter/ Second	0.01-5.00	The rated speed of the elevator	≥2
A7	Door zone long	200	mm	0-2000	Level baffle length	≥2
A8	Door zone SwNum	2	Number	1-3	Set the number of level switches (see 5.3)	≥2
A9	Dec SW Number	2	Number	1-3	Manufacturer's reservation	≥3
A10	Fire2 floor	1	Floor	1-64	Fire status return to second base station floor	≥3

B- Service parameter menu

Serial number	Chinese name	Factory default	Range	Instruction	Level
B1	Floor DIS set	—	0-9、A-Z、-	Set the display content of a layer	≥3
B2	Floor EN set	Permit	0-DIS 1-EN	Set whether a layer is docked (see 5.3 for details)	≥3
B3	Force answer	Normal	0-NOR 1-FOR	This ladder must answer layer when setting parallel and group control.	≥3
B4	Front door set	Permit	0-DIS 1-EN	Whether the front door opens when setting a level.	≥3

B5	Back door set	Permit	0-DIS 1-EN	Whether the rear door opens when setting a level.	≥3
B6	Front door mode	Automation	0-AUT 1-MAN	Set the front door opening mode for a level.	≥3
B7	Back door mode	Automation	0-AUT 1-MAN	Set the door opening mode for a level floor.	≥3
B8	Function set 1	-	0- Off 1- On	To turn some special features off and on.	≥2
B9	Function set 2	-	0- Off 1- On	To turn some special features off and on..	≥3
B10	IC/VIP/Time FCtr	-	0- NOR 1- FOR	Set the floor to be disabled after the timing.	≥3
B11	Fire fdoor dis	-	0- NOR 1- FOR	The floor on which the front door is forbidden to open when the front door is set.	≥3
B12	Fire bdoor dis	-	0- NOR 1- FOR	A floor with a back door that must not be opened during fire fighting.	≥3

C- Time parameter menu

Serial number	Chinese name	Factory default	Unit	Range	Instruction	Level
C1	Start TimeSeries	—	0.1 second	0-99	Start timing (see 5.3 for details)	≥3
C2	Stop TimeSeries	—	0.1 second	0-99	Stop timing (see 5.3 for details)	≥3
C3	Close door time1	3	second	0-99	Opening hold time 1	≥3
C4	Close door time2	3	second	0-99	Opening hold time 2	≥3
C5	Max open time	8	second	0-9999	Set the maximum time for the output of the open door command	≥3
C6	DoorZo SW delay	50	0.1 seconds | millimeter	0-99	Adjust the leveling error	≥3
C7	Rerurn home time	180	second	0-9999	When the elevator is free, the waiting time before returning to the waiting base station	≥3
C8	Off lamp time	120	second	0-9999	Energy saving time	≥3
C9	Door stop time	1	second	0-9999	After the opening/closing is in place, the time when	≥3

					the door machine stops is set to 9999 and the opening/closing command does not stop the output.	
C10	Door delay time	3	second	0-9999	Open the door for longer periods of time after the switch is operated.	≥3
C11	PreOpenDoor Dis	200	millimeter	0-999	The distance from the level position when opening the door in advance (see 5.3)	≥3
C12	Soft Start Time	2	second	0-655	Soft boot time (see 5.3 for details)	≥3
C19	Maintain cycle	64	day	0-65535	Maintenance alarm cycle	≥3

D- Running parameter menu

Serial number	Chinese name	Factory default	Unit	Range	Instruction	Level
D1	INV speed mode	1	—	0-4	Set control mode	≥2
D2	Zero speed level	3	Pulse /0.1 seconds	3-99	When set to 00, the external zero-speed signal is used, and when set to 01-99, the internal zero-speed signal is used	≥2
D3	Level speed	30	‰	0-99	Corrected running speed	≥2
D4	Squirm speed	20	‰	0-99	Creep velocity	≥2
D5	Crawl speed	40	‰	0-99	Crawling speed	≥2
D6	Inspection speed	20	%	0-99	Repair running speed	≥2
D7	Low speed	45	%	0-99	Low operating speed	≥2
D8	Middle speed 1	60	%	0-99	Medium running speed 1	≥2
D9	Middle speed 2	80	%	0-99	Medium running speed 2	≥2
D10	Hight speed	99	%	0-99	High operating speed	≥2
D11	Low speed ACC T	3	second	0-200	Acceleration time at low speeds	≥2
D12	Mid1 speed ACC T	4	second	0-200	Acceleration time at medium speed 1	≥2
D13	Mid2 speed	4.5	second	0-200	Acceleration time at medium	≥2

	ACC T				speed 2	
D14	Hig speed ACC T	5	second	0-200	Acceleration time at high speeds	≥2
D15	Accelerated	0.5	m/s2	0-1	Manufacturer's reservation	≥2
D16	Sp Accelerated	0.7	m/s2	0-1	Manufacturer's reservation	≥2

E-group Control parameter menu

Serial number	Chinese name	Factory default	Range	Instruction	Level
E1	Address	0	0-99	Local address in parallel	≥2
E2	Floor offset	0	0-64	Use when the elevators at the lowest level are not on the same floor in parallel (see 5.3)	≥2
E3	Group homing	0	0-64	Waiting base station in parallel	≥3
E4	Group mode	0	0-99	Manufacturer's reservation	≥2
E5	Up rush hour 1	0	0-9999	2 hours +2 minutes (peak run time 100 minutes)	≥3
E6	Up rush hour 2	0	0-9999	2 hours +2 minutes (peak run time 100 minutes)	≥3
E7	Down rush hour 1	0	0-9999	2 hours +2 minutes (peak run time 100 minutes)	≥3
E8	Down rush hour 2	0	0-9999	2 hours +2 minutes (peak run time 100 minutes)	≥3

F- Protect parameter menu

Serial number	Chinese name	Factory default	Unit	Range	Instruction	Level
F1	Reopen door time	20	Second	0-9999	The waiting time for reopening/closing the door after a failed attempt.	≥2
F2	Reopen times	5	Times	0-99	The number of unsuccessful attempts to close the door again	≥2
F3	INV reset times	5	Times	0-99	Limit the number of reset times after a drive failure	≥2
F4	Door zone SW time	30	second	0-9999	Maximum interval between horizontal switch actions during automatic operation	≥2
F5	System Err times	20	Times	0-99	The number of failures in operation is limited, and the machine stops and	≥2

					displays "fault overfrequency" when it is reached within the unit time.	
F6	Running Overtime	120	Second	0-9999	Maximum time of a single run	≥2
F7	Low Speed DEV	90	%	20-200		≥2

H- Pulse parameter menu

Serial number	Chinese name	Factory default	Range	Instruction	L
H1	Up DEC SW1 pulse	-	0-99999999	Display top short reduction length (unit: m)	≥2
H2	Up DEC SW2 pulse	-	0-99999999	Display top length deceleration length (unit: m)	≥2
H3	DN DEC SW1 pulse	-	0-99999999	Display lower short deceleration length (based on single-layer deceleration distance) (unit: m)	≥2
H4	DN DEC SW2 pulse	-	0-99999999	Display long deceleration length (high-speed deceleration distance is based on this) (unit: m)	≥2
H5	Total pulse	0	0-99999999	Display pulse count	≥2
H6	DoorZo SW pulse	0	0-9999	The umber of flapper pulses	≥2
H7	Floor pulse	—	0-99999999	Display the number of pulses per layer	≥2
H8	All DoorZo ADJ	0	-200mm～+200mm	Overall level position adjustment (see 5.3)	≥3
H9	SigLevDoorZo ADJ	0	-200mm～+200mm	Adjust the level position of each floor separately (see 5.3)	≥3

J-I /O port parameter menu

Serial name	Chinese name	Factory default	Range	Instruction	Level
J1	MainBoard in ADJ	—	0-1	MainBoard in ADJ(see 5.3)	≥2
J2	MainBoard out AD	—	0-1	MainBoard out AD	≥2
J3	CarBoard in	—	0-1	CarBoard in ADJ	≥2

	ADJ				
J4	CarBoard out ADJ	—	0-1	CarBoard out ADJ	≥2
J5	Car call set	—	1-64	Car call set	≥3

L- Service parameter menu

Serial number	Chinese name	Factory default	Range	Instruction	Level
L1	Self learn	0	0-1	Start self learn	≥2
L2	Test run time	0	0-999	When the test runs, the interval between runs	≥2
L3	Data copy	0	0-99	Parameter copy, replication (Detail 5.3)	≥3
L4	Factory para	0	0-99	Data initialization (set to 12 at initialization)	≥2
L5	User password	0	0-99999999	The initial password is 00000123	≥2
L6	Factory password	—	—	(Reserved by the manufacturer)	≥2
L7	Advance para	—	—	(Reserved by the manufacturer)	≥3
L8	Function Test	—	—	Special function tests (Detail 5.3)	≥3

N-Drive relative menu

Serial name	Chinese name	Factory default	Unit	Range	Instruction	Level
N1	Drive Base Type	4011	Voltage_Power	0-65535	Must match the drive base model	≥3
N2	Motor Power	11.0	KW	1.0-100.0	The actual power of the motor	≥1
N3	Motor Type	0	-	0-255	0 is a synchronous motor, 1 is an asynchronous motor	≥1
N4	Input Volt	380	Volt	5-440		≥1
N5	Motor Rated Volt	380	Volt	5-440		≥1
N6	Motor Rated Curr	24.0	Amber	1.0-250.0		≥1
N7	Motor Rated RPM	167	RPM	1-9999		≥1
N8	Motor Rated HZ	50	Hz	0-50	Asynchronous motor active	≥1
N9	Motor Pole Num	20	Pole number	2-60		≥1

N10	Motor Direction	0	-	0-1	Can change the motor running direction	≥1
N11	PG Type	0	-	0-255	0 indicates the onboard sine and cosine PG card, and 1 indicates the onboard incremental PG card	≥3
N12	PG Tooth Number	2048	Pulse	0-65535	The actual number of encoder pulses per turn	≥1
N13	PG Direction	0	-	0-1	0 is A ahead of B, and 1 is B ahead of A	≥1
N14	PWM Carrier	8	-	4-12		≥3
N15	PG pole shift	0	Angle	0-360	Synchronous motor used	≥1
	Slip COMP PER	100	%	0-200	Asynchronous motor used	
N16	Motor Tuning	-		0-255		≥1
N17	N Group Para INI	0		0-255	Set this parameter to 13 to initialize N and P groups	≥1
N18	Com_Freq	-	-	-	Manufacturer's reservation	≥3
N19	Com_Phas	-	-	-	Manufacturer's reservation	≥3
N20	Com_Amp	-	-	-	Manufacturer's reservation	≥3

P- PI Parameter menu

Serial name	Chinese name	Factory default	Range	Instruction	Level
P1	Low Speed Gain	Associated with power	5-50	Gain at low speed.	≥1
P2	LowSpeed Integra	Associated with power	0.03-0.97	The integral at low speed.	≥1
P3	Hight Speed Gain	Associated with power	5-50	Gain at high speed.	≥1
P4	HigSpeed Integra	Associated with	0.03-0.97	Integration at high speed.	≥1

		power			
P5	Weighing Gain	5	1-99	Generally no adjustment required.	≥1
P6	WeighingIntegra	0.35	0.03-0.49	If there is reverse slip, please adjust the value, if there is oscillation, please adjust the value.	≥1
P7	Weighing Time	1.25	0.00-3.00	Hold the gate opening delay time, too large may produce oscillation.	≥1
P8	Inertial Ratio	100%	10-120%	Percentage of inertia.	≥1
P9	BrakeTorqueRated	50%	20-100%	Set the torque when the lock is automatically detected	≥3
P10	Current Loop PER	100%	20-999%	Current loop percentage	≥3
P11	Reservation			Manufacturer's reservation	≥3

Y-System parameter menu

Serial name	Chinese name	Factory default	Range	Instruction	Level
Y1	Menu Class	1	1-3	The higher the level, the more parameters you can view and modify.	≥1
Y2	Time adjust	-	-	Set the system time.	≥2
Y3	Language	0	0-99	Select system language (0 Chinese, 1 English)	≥2
Y4	Version	-	-	View the software version (Read only)	≥2
Y5	S/N	-	-	Motherboard Unique ID identifier (Read only)	≥2
Y6	Remote ParaModif	-	-	Manufacturer's reservation	≥3

5.3 Part of the parameter adjustment menu detailed description

A5 Key position Set the floor where the ladder lock switch is located

A8 Number of level switches If there is only one level switch, please set it to 1 and connect the level switch to X2. If there are 2 leveling switches, please set it to 2 and connect the upper leveling switch to X1 and the lower leveling switch to X3.

B2 Floor Settings are allowed Floor permit and shield refers to the hall call, the shielding of the car call command, can also be achieved by not connecting the button line.

B8、B9 Detailed description of the function option Settings：If the value is set to 0, it means off. If you want to enable a feature, set it to 1.

Serial number	Factory default	Chinese name	Instructions
F001	0	Do not open doors	Do not output open door command (used during

			testing)
F002	0	Hall calls are prohibited	Hall call cannot be called (used in testing)
F003	0	Test run start	Automatic test run (when used for testing, L2 parameter is required. If L2 is 0, automatic test run cannot be started)
F004	0	Backdoor enabled	Enable this function if there is a backdoor
F005	0	Second car call	Enable this function when there are two car call boards (dual control boards)
F006	0	Second hall call	If the back door has hall calls, enable this function. The address of the back door floor 1 is 33, the address of the back rear door floor 2 is 34, and so on
F007	0	Third car call	Enable this function when there are three internal call boards (three control panels)
F008	0	Inspect the exterior switch	No hall call was displayed during inspection
F009	0	Inspection display text	During inspection, the hall call alternately displays "INS" and floor
F010	0	The maintenance display flashes	During inspection, the hall call shows the floor and the floor blinks
F011	0	Power-on reset	After each power-on, automatically run at a low speed to the terminal station reset
F012	0	Repair reset	After each inspection is turned to automatic, it automatically runs at a low speed until the terminal station is reset
F013	0	Fire emergency landing	After running to the fire floor, open the door and stop running (do not close the door, do not call until the automatic state is restored)
F014	0	Open the door and wait for the elevator	In the automatic state of standby, it is in the open state, and the close button is invalid at this time. After receiving the car call signal, the door will be automatically closed and run to the corresponding floor
F015	0	Reverse car call	The call can accept the floor registration signal in the opposite direction of the current operation (Example: the elevator is now on the 5th floor and running upward, at this time you can register the car call signal on the 1st floor)
F016	0	Separate front and rear doors	When the back door is enabled and there is a second car or hall call, this function is enabled. The car or hall calls of the front/back door control the corresponding front/back door respectively

F017	0	Driver press closing switch	The driver can automatically close the door by pressing the door closing button, without holding down the door closing button
F018	0	Inspect NL door	Inspection in the non-level area can open the door
F019	0	Lock replacement limit	Door lock feedback signal instead of door closing limit (used during testing)
F020	0	Floor control start	Floor prohibitions/permits can be made in the car
F021	0	PG line selection	When synchronizing the machine, 0 is the new STEP PG line standard, 1 is the Monarch PG line standard
F022	0	Medium speed 2 enabled	Enable and disable medium speed 2 (for use at 2.5m /s and above)
F023	0	The driver starts forward	After it is enabled, the open/close position signal is invalid, and B6 and B7 are automatically set to 1 (manual). After the elevator runs to the target floor, the door lock must be disconnected once before it can continue the next operation
F024	0	The driver starts forward	After the attendance control driver status is enabled, the elevator responds to the forward hall call signal
F025	0	Inspection pad starts	The safety contact plate is effective during inspection
F026	0	Car call cancellation is prohibited	Car call cancellation prohibition
F027	0	Run the cancellation ban	Cancel the number during running (that is, the number cannot be canceled during running, only when the elevator is leveling, it can cancel the number)
F028	1	Locking operation prohibited	After locking, clear all the registered car and hall call signals, and directly return to the locking base station to enter the locking state
F029	0	Leveling correction ban	No leveling switch correction (used during testing)
F030	0	Deceleration correction ban	No reduction switch correction (used during testing)
F031	1	Leveling DECR forbidden	No leveling switch DECR correction (used during testing)
F032	0	Forced stop start	After opening, even when the base station is fully loaded, if the hall call below the base station is registered, it will continue to respond to the hall call below the base station
F033	0	Deviation reset	When the deviation is found to be too large during

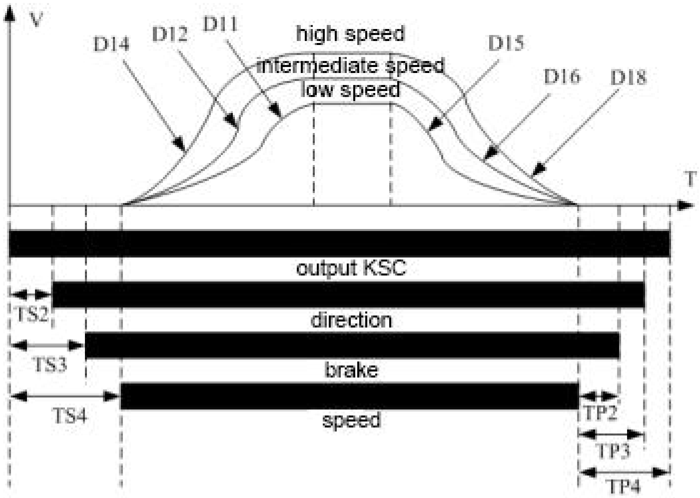
		ban	the leveling, it will automatically run at low speed to the terminal station to reset
F034	0	Soft limit enabled	If no physical limit switch is available, enable this function
F035	0	Brake test forbidden	Brake automatic test function is disabled
F037	0	Pulse fault ban	No pulse fault detection (used during testing)
F038	0	Leveling fault forbidden	No leveling fault detection (used during testing)
F039	0	Single time limit ban	No single run time detection (used during testing)
F040	0	Brake BRK21forbidden	Brake switch 2 forbidden
F041	1	Brake BRK2 forbidden	Brake switch 2 forbidden
F042	0	High voltage input ban	No high voltage input detection
F043	0	Low voltage safety ban	The safety low voltage input (X13) test is not performed
F044	0	Releveling is allowed	Open micro level
F045	0	Top layer protection	Cannot continue to run upward when running the top short reduction switch
F046	0	Fire floor opening	After entering the fire status, it can run to all floors (including the floors that have been set as forbidden in parameter B2).
F047	0	The single set option is enabled	Hall calls have only one button (i.e. there is no separate up/down button for hall calls)
F048	0	Safety check	When the inspection switch is changed from inspection to automatic, the hall door or car door must remain disconnected for more than 4 seconds before it can enter the automatic state.
F049	0	Deceleration mode	If there is only a short reduction switch, set it to 0. If there are short reduction switch and long reduction switch, please set to 0; If there is only a long reduction switch but no short reduction switch, set it to 1
F050	0	Fire fighting mode	When this function is 1, the fire linkage signal of the fire control center operates, and the elevator returns to the fire base station, keeps the door open, and does not enter the secondary fire state. At this time, if you want to enter the secondary fire state, you must make the fire switch of the fire base

			station operate.
F051	0	Learning mode L1	The shaft self-learning mode is forced to learn the length of the 1st floor flapper, and it is enabled when the 2nd floor is short flapper
F052	0	Explicit advance	Explicit floors are not shown in advance
F053	0	Explicit fault start	After startup, the display is currently faulty (when there is a fault)
F054	0	Core sealing feedback prohibition	When this function is 0, the core sealing contactor feedback function is effective
F055	0	AUTO RES	AUTO RES
F057	0	Light curtain to prevent trouble	When this function is 1, the light curtain anti-disturbance function is invalid
F058	0	The CPM fault is prohibited	If this function is set to 1, the CPM fault is invalid
F059	0	Preboot enable	Elevator pre-start open (must have UCMP and high voltage input)
F060	0	Backdoor detection prohibition	Does not detect back door lock adhesion
F061	0	The IC card function is enabled	The IC card function is enabled
F062	0	Abnormal hall calls are disabled	In parallel or group control mode, the system blocks problematic hall calls
F063	0	Third door permitted	Activated when there are 3 car doors
F065	0	Power on, set and start	After power-on, an automatic PG setting is performed on the first run
F066	0	Asynchronous Sin PG	Asynchronous motors use SinCos encoders
F067	0	LeakGndDis	Ground leakage protection detection is prohibited(Please consult the manufacturer before opening)
F068	0	Brake compensatory start	If the opening of the brake is inconsistent (or slow), this function is changed to 1, and it is not easy to appear "current abnormal" fault
F069	1	Input phase loss start	When this function is 1, the input phase missing detection of the inverter is turned on
F070	0	The soft boot function is enabled	If this function is set to 1, the soft boot function is enabled.
F071	0	Velocity filter ban	Manufacturer's reservation

F072	0	DC48V EPS	Manufacturer's reservation
F073	0	AC220V EPS	Manufacturer's reservation
F074	1	Weight enhancement 1	After enabling, the weighing effect is enhanced. Weight enhancement effect: F74 and F75 are 0< F74 is 1< F75 is 1< F74 and F75 is 1 Note: The stronger the weight enhancement effect, the more likely the weighing shock will occur
F075	0	Weight enhancement 2	
F076	0	Weighing speed ring	8K-4K
F077	0	BRK DOG FD	Manufacturer's reservation
F078	0	Shutdown	No shutdown command is output at runtime
F079	0	Not open the door operation prohibited	It can run to other floors when it can not open the door within 25 seconds and the door lock and closing limit is not disconnected.
F080	0	ARD Weighing start	ARD is weighed when started
F081	0	Pre-opening prohibition	Pre-opening prohibition
F082	0	Opening and closing voice	Open and close the door report voice, need to slow down station
F083	0	Door status permit	Manufacturer's reservation
F084	0	Remote control start	Manufacturer's reservation
F085	0	Voltage follower ban	Limit the maximum operating speed according to the voltage of the input power supply. Forbid when it is 1
F086	0	Low pressure door lock	Low voltage input (X14, X15) of door lock is not tested
F087	0	Fast weighing disable	When the elevator starts, stop weighing immediately after the brake switch operates
F088	0	Automatic speed start	The running speed is automatically adjusted according to the distance between the car and the target floor
F089	0	Motor mode start	Manufacturer's reservation
F090	0	Touch screen call activation	Enable when the car call board is touch screen
F091	0	Inspection communication1	Car top inspection is opened for communication
F092	0	Inspection communication2	Pit inspection is opened for communication
F095	0	Quick start	If the door close is not in place, the elevator will

			start to run directly after the door lock is connected.and the door close in place signal will be detected after 3 seconds
F096	0	UCMP testing is prohibited	If the UCMP function is disabled, set this parameter to 1
F097	0	22 Standard	T7007-2022 new standard
F100	0	Vibration restrained	Vibration restrained operates
F101	0	Core sealing detection prohibited	Core sealing detection prohibited
F102	0	Hold the brake slow release start	Hold the brake slow release start
F105	0	The key card is dead	Manufacturer's reservation
F106	0	Rain control start	When the rain signal is received, the elevator runs to the upper floor
F107	0	Monitor active start	The monitoring terminal on the mainboard actively outputs signals
F108	0	Generator options	After receiving the power input signal, elevator slow runs nearby, return to base station and stop.
F119	0	Malaysia ST	Malaysian standard
F120	0	Singapore standard	Singapore standard
F121	0	Hong Kong standard	Hong Kong standard
F122	0	Robot control	With the elevator special robot
F123	0	VIP enable	Standard VIP functions
F125	0	Voltage fluctuation prohibition	When this function is 1, the "E66 speed deviation is too large" and "E72 current abnormal" are not reported when the elevator is running at high speed.

C1, C2 Start, stop timing Start, stop timing, this time affects the starting comfort.



C3 closing wait time 1 Closing wait time after reopening.

C4 Closing time2 First closing waiting time = closing waiting time 1+ closing waiting time 2.

C5 Maximum opening time This parameter should be ≥ C3+C4.

C9 Door operation stop time control

After the door is in place, the open/close command signal delays this time to stop output, and the open/close command is always output when it is set to 9999.

C10 Opening hold time

After door opening time extending switch operates, it can extend the opening time. When the door is closed, press the door opening time extending switch to open the door.

C11 Pre-opening distance

The distance from the leveling when the door is opened in advance. Note that when opening the door in advance, the leveling switch should have been moved. If the leveling switch has not yet moved, although the distance from the level position has reached the value set by this parameter. The door will not be output in advance.

C12 Soft start time

This parameter is valid only after F070 of B9 is enabled. Adjust this parameter to change the soft start time.

D1 Control mode

Depending on the setting of different values to achieve different controls:

Digital speed control 00, analog control 01.

If the value of this parameter is changed, the values of D3 to D10 also change.

D2 Zero speed class

Set to 00 to use the external zero speed signal, and adjust the corresponding driver parameters. If the zero speed signal of the driver has not been obtained, then 5 seconds after reaching the target floor to close the brake and stop. When set to 01 ~ 99, the internal zero speed signal is used, and the setting is flexible according to the encoder pulse and the speed of the elevator.

D9 Medium operating speed 2

This parameter will only have an output when F022 of B8 is enabled, and the elevator speed is greater than or equal to 2.5m/s, or the length of the short deceleration switch ×3 is less than the length of the long deceleration switch.

E2 floor offset

If the floors of elevator1 are -2 ~ 30 floors, and the floors of elevator 2 are 1 ~ 30 floors, and if the two elevators are connected in parallel, then the E2 parameter of elevator 2 must be set to 2 and the A1 parameter to 32 before self-learning.

H8 Leveling position entirety adjustment

Adjust this parameter if the level position of each layer needs to be adjusted. The value of + is increased, and the value of - is decreased. This parameter works with H9.

H9 Leveling position single-layer adjustment

If the certain leveling position needs to be adjusted, adjust this parameter. The value of + is increased, and the value of - is decreased. This parameter works with H8.

If you need to adjust the leveling position single-layer in the car, first access this menu using a hand-held operator in the machine room:

【 H9 】

Level position single-layer adjustment

01F:→	0	mm
02F:	0	mm
03F:	0	mm
04F:	0	mm

Keep the interface motionless, and the debugger enters the car. Use the call button to run to the floor to be modified. After the elevator reaches the target floor and opens the door, press and hold the door button. Press (do not hold down) the call button at the top level to raise the leveling. Press the bottom call button to lower the leveling. At this time, the car display board will display the data you set. The up arrow is ⩾0, the down arrow is ⩽0. After the setting is completed, release the door opening button. The car display board returns to normal display, and continue to run to other floors for setting.

J1 Mainboard Input Settings

The definition of the motherboard output terminal and the terminal function settings are operated in this menu.

The default input level of the motherboard can not be modified except X10 ~

X15 and other terminal levels (normally open/normally closed) can be modified according to needs, and other input terminals can be replaced, and their function numbers can be modified to the address number of the corresponding function. J3 is the same as J1.

The list of input port function numbers is as follows:

	Name	Address	Name	Address	Name	Address	Name
1	UP door zone	2	Door zone	3	Down door zone	4	Upper short deceleration switch
5	Upper long deceleration switch	6	Up limit	7	Lower short deceleration switch	8	Lower long deceleration switch
9	Up limit	10	Inspection	11	Inspection up	12	Inspection down
13	Safety switch	14	Door lock1	15	Door lock2	16	BRC feedback
17	Reservation	18	CC feedback	19	Pre-opening	20	Main engine overheat
21	Overheat of door operation	22	Traction rope	23		24	
25	Fire fighting	26	BRK1 feedback	27	BRK2 feedback	28	IC card control
29	core sealing feedback switch	30	Driver	31	Operation signal	32	Zero speed signal
33	Front door opening button	34	Front door closing button	35	Front door opening limit button	36	Front door closing limit button
37	Back door opening button	38	Back door closing button	39	Back door opening limit button	40	Back door closing limit button
41	Underload	42	Full load	43	Overload	44	Attendance control
45	Special	46	Front door light curtain	47	Back door light curtain	48	Alarm button
49	Lock elevator	50	Fire fighting2	51	Door opening hold	52	Emergency operation

53	Generation input	54	Seismic signal	55	Up peak	56	Down peak
57	Front door contact plate	58	Back door contact plate	59	Timing barrier	60	Top lock elevator
61	Emergency detection	62	Body sensing	63	door bypass	64	Fire protection layer

J2 Motherboard Output Settings The definition of the motherboard output terminal and the terminal function settings are operated in this menu.

It can replace other output terminals and change their address to the function number of the corresponding function. J4 is the same as J2.

The list of output terminal function numbers is as follows:

	Name	Address	Name	Address	Name	Address	Name
1	MC contractor	2	CC contractor	3	BR contractor	4	BFcontractor
5	Door opening output	6	Door closing output	7	Door pre-opening	8	Fire feedback
9	Up switch output	10	Down switch output	11	Speed segment 1	12	Speed segment 2
13	Speed segment 3	14	Enable1	15	Reset	16	Operating
17	Open the front door	18	Close the front door	19	Open the back door	20	Close the back door
21	Energy saving output	22	Station announcement output	23	Buzzer	24	Enable2
25	Emergency complete	26	Breakdown	27	Fire fighting2	28	The IGBT is powered on
29	Fan output	30	Forced closing	31	Emergency output	32	Emergency state
33	Core sealed output	34	Leveling	35	Door zone	36	Forced closing
37	Electromagnetic door	38	Car door closed	39	Closed output	40	IC card shielding
41	Robot ban	42	Robot ban	43	Sterilizing lamp	44	Door Magnetism 1

45	Door Magnetism 2	46	decelerating	47	Slow down light	48	Front door light
49	Back door light						

J5 Call interface Settings

The system has a total of 64 call terminals, and the effective address is assigned from 1 to 64. When a terminal is not used, the address can be set to 0 (no function). If it is used as a replacement, just swap the address.

L1 Shaft data learning

Before learning the shaft data, please ensure that the elevator can perform normal inspection and operation, and that parameters A and E2 are correctly set.

L3 Data replication

This menu is used to copy parameters.

Set to 1: all-in-one machine → operator; Set to 2: Operator → all-in-one;

Set to 3: Parameter verification.

L4 Factory data recovery

This menu is used to initialize data. If it is set to 12, it initializes all data. After initialization, it is necessary to operates the shaft self-learning.

L5 User password

View and modify the user password parameter menu, restrict the use of illegal users. re-enter the user password after each power failure and restart,.

Enter 23400000 in this parameter. After the elevator runs to the target floor, it keeps the door open in place, hold down the up or down call buttons, and set the hall door address automatically after 5 seconds.

L8 function test

UCMP test:

1. The elevator stops at the leveling and keeps the door closed;
2. Flip the inspection switch to the inspection state;
3. Flip "Door lock manual detection switch" on UCMP-A01 or UCMP-A02 board to "TEST" to simulate the lock disconnected;
4. Set 00000066 in L08 to operate the UCMP test;
5. Press and hold the inspection up or inspection down buttons, the door contactor outputs, door lock short circuits. At this time the elevator normal inspection start operation;
6. When the elevator runs out of the door zone, UCMP-A01 board will cancel the lock short-circuit, reporting "E48 UCMP fault", and the elevator will stop running.

Also it will cancel the lock short-circuit, and control the additional brake operation, reporting "E48 UCMP fault", then the elevator stops running; After the elevator runs out of the door zone, UCMP-A02 board

Automatic detection of brake power:

1. LDC1000B system has automatic detection function of brake power.The system automatically detects once every 12 hours in the standby state, and the P9 parameter sets the parameter for the detection torque of the brake force. When it is detected that the brake fails under the set braking torque, the system reports an E41 fault, and the elevator back in service after there is no fault by manual re-test of the torque of the brake force. (the fault cannot be recovered even after power failure).

2. Manual test brake torque method:

a. Flip the inspection switch to the inspection state and keep the door closed;

b. Set 00000055 in Parameter L08, flip the inspection switch to automatic state, and start the brake torque test;

C. The system starts to automatically detect the torque of the brake force and test the brake coil respectively.

Method of manually testing the core sealing contactor:

1. Turn the inspection switch to the automatic state and keep the door closed;

2. Set 00000045 in parameter L08 to open the core sealing contactor test;

3. The system starts to automatically detect whether the core sealing contactor is normal (if the car is on the top floor at this time, it will automatically run down one floor), automatically open the brake contactor and running contactor, the car starts to slide upward at a speed of no more than 0.3m/s, stops sliding after moving 1.5 meters, and the elevator automatically slowly run and returns to standby state.

Overload short-circuited description:

1. The elevator is in the "automatic" state;

2. Set 00000022 in parameter L08 to enable overload short-circuited;

3. After the overload short-circuit is opened, the overload switch is invalid, needing 10 minutes;

4. After reaching 10 minutes or the power is off and restarted, it will automatically return to the "automatic" state, and the overload switch is effective.

Test running times Settings:

Set this parameter to 11000000, where 0 is the number of times. For example, if the test runs 1000 times, enter 11001000.

If you need to cancel the test before the test is completed, enter the inspection state or power off once.

After starting the test, in the "Initialization Menu 1", press the button on the operator to check the remaining times.

Note that if B8's F003 "Test Run Starts" is set to 1, there is no count limit.

Fan fault shielding:

Set this parameter to 0000025 and mask Fan Fault within 72 hours.

Note: The setting takes effect only when the elevator is in the "fan fault" state. If the elevator is not in the "fan fault" state, the setting error will be displayed.

When 125% wire rope can not slip during slip test :

Set to "0000028". With the starting torque of inspetion operation increases, the starting time is accelerated. This parameter is valid within 1 minute after the setting is successful.

B8 Parameter Description of front and back doors

Note: All input/output signals on the front and back doors are connected to car call 1, and the car call buttons are connected to car call 1 and 2 respectively.

F04：Backdoor enabled

F05：The second car call is enabled

F06：The second hall call is enabled

F16：Separate front and back doors

F04	F05	F06	F16	Door1（front door）	Door2（back door）	Remark
0	1	0	0	Car call1 and car call2 control hall call of the front door Address：1-64		When there are door 1, car call 1 and car call 2, Only the front door hall car
1	0	1	0	Car call1 and car call2 control hall call of the front door Address：1-32	Car call1 controls hall call of back door Address：33-64	When there are door 1 and door 2, only car call 1, and there are front door hall call and back door hallcall. (Front/back door switch simultaneously)

1	1	1	0	Car call1 and car call2 control hall call of the front door Address：1-32	Car call1 and car call2 control hall call of the back door Address：33-64	When there are door 1 and door 2, car call 1 and car call 2, and front door hall call and back door hall call. (Front/back door switch simultaneously)
1	0	1	1	Car call1 controls hall call of the front door Address：1-32	Car call1 controls hall car of back door address：33-64	When there are door1 and door2, car call 1, front door hall car and back door hall call and front and back doors independent switches(Front/back door switch simultaneously)
1	1	1	1	Car call1 controls hall call of the front door Address：1-32	Car call2 controls hall car of back door Address：	When there are door1 and door2, car call1 and car call2, front door hall call and back door hall car and front and back doors independent switches(Front/back door switch simultaneously)

Chapter 6 Fault

6.1 Fault occurs during the operation of the elevator

Automatic 12
*32# 6533 cs
Safely disconnect

If an elevator fault occurs during operation, the fault will be displayed on the bottom line of the LCD screen. So you need to press ENTER to eliminate the fault.If the fault persists, rectify the fault.

6.2 Control fault checking detailed description

【Fault record】
→ 1: Fault checking
2: Fault rectifying

ENTER

N1 F12 E19-A00
Safely disconnect
10-06 15-26-28

>

【Fault checking】 menu

01	02	03	*04
05	*06	*07	*08
09	10	11	12
13	*14	*15	16

∨

The status of the mainboard input when the fault occurs

【Fault checking】 menu

17	18	19	20
21	22	23	24
25	26	27	28
29	*30	31	*32

∨

The status of the mainboard input point when the fault occurs

33	34	*35	36
37	38	*39	40
41	42	43	44
45	*46	*47	48

>

Car board input point status at fault

01	02	03	*04
05	*06	*07	*08
09	10	11	12
13	14	15	16

>

Status of the mainboard output point when the fault occurs

17	18	19	*20
21	22	23	24
25	26	27	28
29	30	31	32

>

Run_S : 5
Speed : 8
Speed-DA : 0

>

17～22 is the state of car board output point at fault

Start_F ：	10
Target_F ：	15
S_Pluse ：	25988
Pluse ：	35621

>

Speed_1 ：	92%
Speed_2 ：	92%
Current ：	24.6A
DC Bus ：	590 V

Run_S：（Internal state at the time of failure）0: standby; 1: Open the door; 2 Wait for the door to close; 3: Start the calculation; 4: pre-start; 5: fast operation; 6: Deceleration (did not reach the target floor, did not receive the leveling signal); 7: Decelerating (has reached the target floor, did not receive the leveling signal); 8: Decelerating (receiving 1 leveling signal); 9: Decelerating (receiving 2 leveling signals); 11-13: Return to the leveling; 15: Parking in progress.
Speed: The speed segment when the fault occurs. Speed-DA: percentage of analog Speed at fault;

Start_F: starting floor; Target_F: Expected arrival floor; S_Pluse: start pulse number; Pluse: indicates the number of pulses when the fault occurs.
Speed_1: Given speed; Speed_2: feedback speed; Current: Output current; DC Bus: DC bus voltage.

6.3 Control fault code table

Code	Fault	Reason	Solution
E01	Safety switch disconnects during operation	Safety switch （X13） disconnects during operation	Check safety loop
E02	Door lock disconnects during operation	Hall door feedback switch disconnects during operation	Check hall door lock loop
E03	The door lock is disconnected during operation	Car door feedback (X15) is disconnected during operation	Check car door lock circuit
E04	Upper limit operates during operation	Running upper limit (X6) action	Check upper limit
E05	Lower limit operates when running	Run lower limit (X9) action	Check lower limit
E06	The running drive is faulty.	Running drive failure (X30) action	Check driver
E07	Driver operates error	No feedback from driver ready signal (X31)	Check driver

E08	Pulse detection error during operation	No pulse signal was detected in 3 seconds during operation	Check PG and PG line
E09	Inspection during operation	Inspection （X10）during operation	Check inspection loop
E10	Leveling switch fault during operation	No level signal was detected at the time set for F4	Check leveling switch and Connecting wires
		When the elevator starts, the leveling switch does not operate for 6 seconds	
		When the elevator decelerates, the leveling switch does not operate for 16 seconds	
E11	Brake switch fault during operation	Brake switch fault during operation	Check brake switch
E12	Running overtimes	The single run time exceeds the value set by F6	Set the value of the F6 parameter correctly
E17	UPL Err	UPL Err	Check terminal switch positions
E18	DNL Err	DNL Err	Check terminal switch positions
E19	Safe Err	The phase sequence relay is abnormal	Check phase sequence
		Safety loop operation	Check safety loop
E20	Drive fault	Drive fault	Fault code table for processing
E21	Output contractor fault	The output contactor is damaged.	Change the contactor.
		X18 Signal anomaly	Check connections and Settings
E22	Brake contactor feedback fault.	The lock contactor is damaged.	Change the contactor.
		X16 Signal anomaly	Check connections and settings
E23	The brake switch feedback is fault.	Normally open/normally closed with feedback from the brake switch setup fault.	Set up correctly
E24	Front door closing fault	The front door won't close	Check the hall door and car door of back door
E25	Back door closing fault	The back door won't close	Check the hall door and car door of back door
E26	Pre open door UCMP feedback	When Pre open door the contactor operates,	Check connections and relays

		No feedback detected	
E27	DLock DLimit Err	The lock or door limit is abnormal.	Check the door lock and door limit.
E28	Door opening fault	The door didn't open in time.	Check the hall door, car door and door limit.
E29	Door closing fault	Closing the door more often or longer than set	Check the hall door, car door and door limit.
E30	Car communication error	The car board and the main board are abnormal.	Check the communication cable connection
E31	Gate Lock SH1	Gate Lock SH1	Change contactor Check the door lock for short circuit
E32	Gate Lock SH2	Gate Lock SH2	Change contactor Check the door lock for short circuit
E33	Safety relay is adhered.	The safety relay is adhered or stuck	Change contactor
E34	Uninitialized	The mainboard data is not initialized.	Data is initialized on the mainboard.
E35	Fault overfrequency	In the unit time (10 minutes), the running failure occurs frequently, and the number of times exceeds the value set by F5	Troubleshooting
E36	Input port duplication	The input port Settings of J1 and J3 are repeated	Change the input port Settings
E37	Error with the upper short deceleration switch	When the elevator stops at the up terminal, Upper short deceleration switch does not operate	Check upper short deceleration switch
E38	Error with the lower short deceleration switch	When the elevator is at the down terminal, Lower short deceleration switch does not operate	Check the lower short deceleration switch
E39	EEP memorizer error	The mainboard EEP memorizer is faulty	Contact the manufacturer
E40	Parameter setting error	The parameter is out of the preset range	Check parameter
E41	Bradk Force Low	Bradk Force Low	Check brake

E42	Car sliding whlie parking	Car sliding whlie parking	Check brake
E43	The CPM input phase sequence is incorrect	Phase loss detected when using CPM board	Check power supply
E44	Brake voltage detection fault	Abnormal lock voltage is detected when using CPM board	Check brake
E45	CPM online error	The CPM01 B board is not connected when the CPM board is used	CPM01Board
E46	F46 fault	F46 fault	Contact the manufacturer
E47	SRes Ref Err	SRes Ref Errr	Contact the manufacturer
E48	UCMP fault	UCMP fault	Contact the manufacturer
E49	Abnormal current at stop	Current detected after output contactor is disconnected	Contact the manufacturer
E50	PositionData DEV	PositionData DEV	Contact the manufacturer
E51	Seismic input action	Seismic signal input detected	Check the seismic detection switch Check that the input points are set correctly
E52	The core sealing contactor is faulty	The core sealing contactor is damaged	Contactor change
		The X14 signal is abnormal. Procedure	Check connections and Settings
E53	Main engine overheat protection	Engine overheat signal input detected	Check the heat detection switch of the host And weather the input points are set correctly
E54	Door operation overheat protection	Door operation overheating signal input detected	Check the door operation overheat detection switch and the input points are set correctly
E55	Traction rope protection	Traction rope protection signal input detected	Check the traction rope protection detection switch and the input points are set correctly
E56	Core sealing failure	When the core sealing function is tested automatically, the siliding speed is too fast	Check the core sealing contactor Check the core sealingcircuit
E65	Overspeed protection	The speed exceeds the set maximum speed	Check parameter

E66	Excessive velocity deviation	The deviation between the pulse input speed detection value and the speed instruction exceeds the range of F7	Reduce the load. Reset F7. Confirm whether the brake is open and whether the rotation is blocked.
E67	Overcurrent	The detected output current of the inverter exceeds the detected value of the overcurrent	Confirm the insulation resistance of the motor. Check the power cable of the motor. Check the motor capacity and replace it with a frequency converter with a larger capacity
E68	Overvoltage protection	The DC voltage of the main loop exceeds the detected value	Whether the braking resistance is normal; Whether the power supply voltage is too high;
E69	Undervoltage protection	Main circuit undervoltage	Confirm whether the wiring of the main circuit power supply is broken or wrong, and whether there is a lack of phase. Check whether the terminal of the input power supply is loose;
E70	PG line anomaly	Encoder wiring error	Check Encoder wiring
E71	PG initialization error	PG magnetic pole shift calculation error	Check encoder
E72	Current anomaly	The current is too large, too small or out of phase	Check the motor connection; Whether the weight and low-speed gain integrals are overtuned
E73	PG misphase	Encoder A and B are phase reversed	Check encoder wiring
E74	PG cable error	PG cable does not meet the requirements	If the Monarch line is used, F021 in B8 is changed to 1
E77	BB	Base locked	
E78	IGBT fault	The IGBT module is damaged or the output cable is short-circuited	Check whether the output UVW is short-circuited. Contact the manufacturer
E79	Earth leakage fault	Earth leakage	Check whether the output UVW is grounded
E80	The enable signal is faulty	The enable signal is not received at run time	Contact the manufacturer
E81	Drive interrupt	Caused by hardware failure	Contact the manufacturer
E82	Error in current	Error in current collection	Contact the manufacturer

	collection data	circuit	
E83	Dc bus hardware overvoltage	The driver base detects that the bus voltage is too high	Contact the manufacturer
E84	Driver communication failure	The communication between the driver board and the control board is interrupted	Check whether the CN8 plug is loose,Contact the manufacturer
E85	The power contactor is faulty	The charging short circuit of the DCbus is faulty	Contact the manufacturer
E86	Fan fault	The fan is damaged or blocked	Clean the fan; Replace the fan
E87	Overload protection	Motor overload	Reduce the load; Verify that the N6 parameter Settings are correct
E88	Weighing oscillation	The weight oscillates when starting	Verify that P5, P6, and P7 are correctly set
E89	Overheat protection	The temperature of the IGBT module is too high.	Clean the fan; Clean the radiator; Contact the manufacturer;
E90	Input phase loss	After F069 Input Phase Loss Enable is enabled in B8, input phase loss is detected	Check the power input circuit

6.4 Fault of the shaft during self-learning

In the process of shaft self-learning, if the parameter setting is wrong or the external state is abnormal, the system will give corresponding prompts and ask the debugger to confirm. After the debugger makes corresponding adjustments, the system will enter the self-learning state again.

All faults that occur during self-learning are not recorded in the Fault Record Menu.

Serial number	Fault	Reason	Solution
01	Verify that it is in inspection state	Not in inspection condition	Enter in inspection condition
02	Verify that the drive is normal	The drive is not in the normal state	Check drive
03	Verify that the safety is normal	Safety loop disconnection	Check safety loop
04	Verify that the door lock is normal	Door lock loop disconnect	Check hall door, car door circuit
05	Verify that the elevator is normal	The elevator is out of order.	Troubleshoot

11	Verify that the upper short deceleration switch is normal	The status of the upper short deceleration switch is abnormal.	Check the upper short deceleration switch
12	Verify that the up limit switch is normal	The status of the up limit switch is abnormal.	Check the up limit switch
13	Verify that the down limit switch is normal	The status of the down limit switch is abnormal.	Check the down limit switch
14	Verify that the pulse is normal	No pulse signal	Check pulse signal
		Pulse direction reversal	Switch phases A and B
15	Verify that the leveling is normal	The leveling switch is abnormal	Check leveling switch
		The number of leveling switches is not set correctly	A8 Parameter Settings
16	The total number of floors is incorrect	Total number of floors A1 Parameter setting is incorrect	After re-setting A1 parameters, the shaft self-learning is performed again
17	Upper long deceleration fault	The upper long deceleration switch is abnormal	Check the upper long deceleration switch
18	Lower long deceleration fault	The lower long deceleration switch is abnormal	Check the lower long deceleration switch
21	Down limit leveling fault	When there are two leveling switches, run to the down limit position, and the down leveling switch does not break away from the bottom leveling baffle. When one leveling switch is installed, run to the down limit position, and the door switch does not break away from the bottom leveling baffle.	Check the position of leveling switches and down limit switches
22	Floor 2 detection is a short magnetic plate	The leveling baffle in the second floor of the actual floor is shorter than the other floors	Replace the 2nd floor baffle; Set F051 "Enable Learning mode L1" in B8 to 1

Chapter 7 Debugging steps

7.1 Verify that external cables and switching signals are normal

Confirm that the elevator is in the "inspection" state, the safety and door lock signals are normal, the up limit and down limit signals are normal, and there is no fault display in the initial screen.(Except "E30 car communication fault")

7.2 Motor self-learning

7.2.1 Synchronous motor self-learning

1. Ensure that the U, V, and W power wires of the motor are connected to the U, V, and W terminals of the driver respectively.
2. Make sure that the encoder is properly wired, whether the encoder is wired in line with the all-in-one machine (same as SIV, the new time reaches the PG line standard).In case of C+,C- contrary (such as the Monarch PG line standard), please adjust the "PG line selection" option in B8.
3. Verify that N1 "Drive Base Model" is compatible with the motor in the field.
4. Verify that the N3 motor type is set to 0.
5. Input in sequence:

N2	Motor power
N4	Power input voltage
N5	Rated voltage of motor
N6	Rated current of motor
N7	Rated motor speed
N9	Motor Pole Num
N12	PG Tooth Number

6.The N16 "Motor Parameter setting" menu is displayed

confirm: inspection status

Motor：14.0A，20-pole
167 RPM，PG：2048

ENTER key，displaying：

Synchronous motor setting

1
Rotation setting

Select this mode in the factory

∧key

Synchronous motor setting

2
Static setting 1

This mode is not recommended

∧key

Synchronous motor setting

3
Static setting2

This mode is usually selected in the field

∧key

Synchronous motor setting

4
PG setting

After learning mode 1 or Mode 3, learn this mode if necessary to make the Angle of the encoder more accurate

∧key

Synchronous motor setting

5
PG automatic setting

Under normal circumstances, it is not necessary to study this mode (if necessary, please call for advice)

7.If release load (in the factory or in the field when there is no hanging wire rope), the setting mode is set to 1, and the rotary synchronous motor self-learning is performed

Synchronous motor setting

1

Rotation setting

↓ ENTER

Wait for the run signal...

↓ Press inspection up/down

Motor setting...

↓

Motor setting successfully...
Electrical Angle：90
Offset Angle：283

8.If cannot release load (when there is no hanging wire rope), the setting mode is set to 1, and the stationary synchronous motor self-learning is performed

Synchronous motor setting

3

Static setting2

↓ ENTER

Motor setting...

↓

Motor setting is successful
Electrical Angle：90
Offset Angle：283

9.After the complete setting mode 1 (rotation) or setting mode 3 (stationary) is successfully performed, the elevator can be repaired normally. If debugging personnel think that the encoder signal is not accurate in the field, they can learn the setting mode 4 again, so that the encoder Angle learning is more accurate. After the learning of the setting mode 4, they should learn the setting mode 1 or setting mode 3 again.

Setting mode 4 Learning steps refer to setting mode 1 (The difference from setting mode 1 is that the learning time is relatively long, about 1 and a half cycles of traction ratio operation).

7.2.2 Asynchronous motor

1、Ensure that the U, V, and W power wires of the motor are connected to the U, V, and W terminals of the driver respectively.

2、Ensure encoder is properly wired (connected to CN6 plug)

3、Verify that N1 "Drive Base Model" is compatible with motor in the field .

4、Verify that the N3 motor type is set to 1.

5、Input in sequence

N2	Motor power
N4	Power input voltage
N5	Rated voltage of motor
N6	Rated current of motor
N7	Rated motor speed
N9	Motor Pole Num
N12	PG Tooth Number

The asynchronous motor does not need to carry out motor self-learning, only need to input the motor and encoder parameters in turn.After that it can be repaired and run. If the current is very large during operation, modify the N12 parameter or manually change the A and B phases of the encoder.

If the asynchronous motor needs to run V/F mode without PG for a short time, just change the N12 parameter to 0.

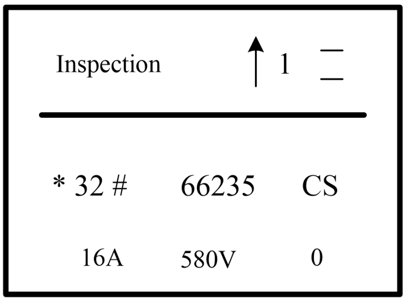
7.3 Inspection trail operation

1.Confirm whether the output current is normal:

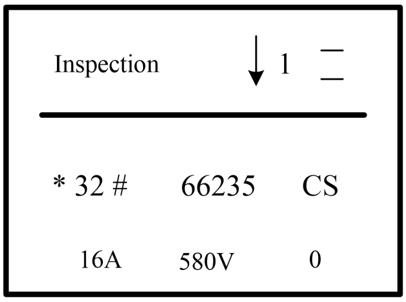
Using the inspection up and down elevator, observe whether the output current is normal on the initial interface 2.

2、Motor rotation direction setting:

Keep the elevator in the inspection up and down state, while monitoring in initial interface 2:



Displayed during Inspection up



Displayed during Inspection down

If the inspection up and down is contrary to the actual situation in the field, the N9 "motor rotation direction" parameter is needed to be modified (After modifying the N9 parameter, it is not necessary to adjust the motor parameters again.）

7.4 Installation of terminal forced speed change switches and leveling switches

1. Adjust the distance of each terminal switch according to the actual elevator speed:

Slow speed deceleration distance = short forced speed change switch length (standard 1300mm)+ short forced speed change switch ×1/10;

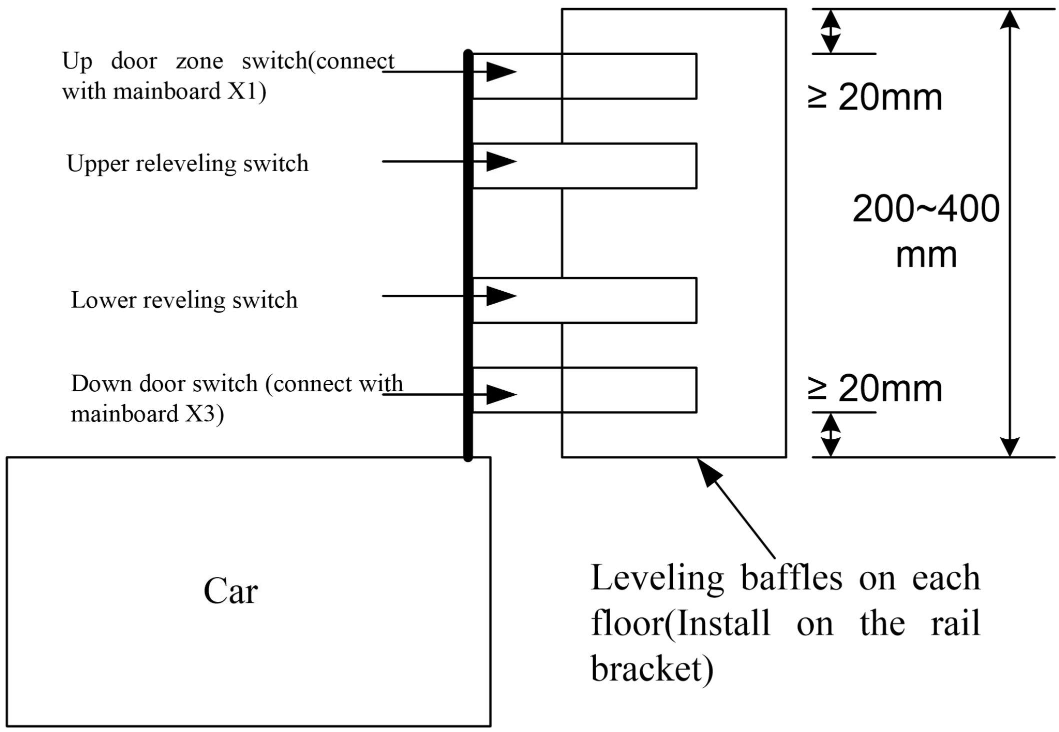
Deceleration distance of medium speed 1 running speed = length of short forced speed change switch ×2;

Deceleration distance of medium speed 2 running speed = length of short force change switch ×3

Deceleration distance of high speed = short force change switch length ×1/7+ long force change switch length.

Terminal name	Speed of elevator						
	0.5m/s	1m/s	1.5m/s	1.75m/s	2.0m/s	2.5m/s	3m/s
Upper and lower short deceleration switch	0.8m～1m	1.3m	1.3m	1.3m	1.3m	1.3m	1.3m
Upper and lower long deceleration switch			2.8m	3.2m～3.4m	4m～4.5m	6m～6.5m	8m～8.5m

2. The selection of leveling baffles and the installation of layer switches:



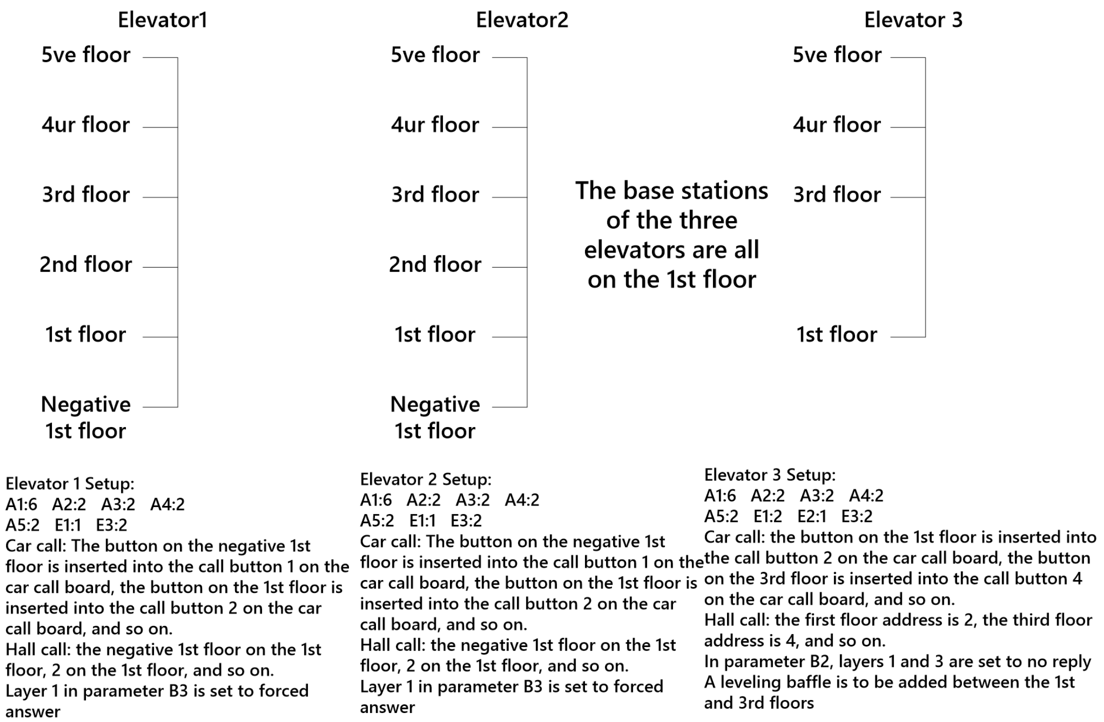
7.5 Setting description of parallel and group control

1、 Parallel: (-1 floor, 1 floor refers to the floor displays; 1 and 3 floors refer to physical floors)

Elevator 1 Setup:
A1:6 A2:2 A3:2 A4:2
A5:2 E1:1 E3:2
Car call: The button on the negative 1st floor is inserted into the call button 1 on the car call board, the button on the 1st floor is inserted into the call button 2 on the car call board, and so on.
Hall call: the negative 1st floor on the 1st floor, 2 on the 1st floor, and so on.
Layer 1 in parameter B3 is set to forced answer

Elevator 2 Setup:
A1:6 A2:2 A3:2 A4:2
A5:2 E1:2 E2:1 E3:2
Car call: the button on the 1st floor is inserted into the call button 2 on the car call board, the button on the 3rd floor is inserted into the call button 4 on the car call board, and so on.
Hall call: the first floor address is 2, the third floor address is 4, and so on.
In parameter B2, layers 1 and 3 are set to no reply
A leveling baffle is to be added between the 1st and 3rd floors

2. Group control: (floor-1, floor1 refers to the floor displays; floors 1 and 3 refer to physical floors)



For both parallel and group control, E2 parameters and A parameters should be set before the well self-learning.

7.6 Shaft self-learning

1. Use the inspection switch in the machine room to make the elevator run once in the shaft;

In the process of operation, observe whether the leveling switch is normal (notice: the leveling baffle is not installed vertically, which will cause the leveling switch is not normal);

During operation, observe whether the switch action of each terminal station is normal (Notice: the touch plate is not installed vertically, which will cause the switch action of the terminal station is abnormal or flashing)

2. The parameter needs to be adjusted before self-learning:

Parameter	Instruction	Parameter	Instruction
A1	Total number of floors	A6	The rated speed of the elevator
A7	Length of elevator leveling baffle	A8	Number of level switches
B8 (FS49)	Deceleration mode	E2	Floor setover (For elevators that need to set setover, be sure to set this parameter before self-learning)

D7～D10 Parameter setting: (reference value)

speed	Parameter setting			
	D7	D8	D9	D10

1m/s	–	–	–	99
1.5 m/s	65	–	–	99
1.6 m/s	60	80	–	99
1.75 m/s	55	75	–	99
2.0 m/s	50	70	–	99
2.5 m/s	40	60	80	99
3.0 m/s	35	60	80	99

D11～D14Parameter setting: (reference value)

speed	Parameter setting			
	D11	D12	D13	D14
1m/s	35	–	–	–
1.5 m/s	35	–	–	50
1.6 m/s	35	40	–	50
1.75 m/s	35	40	–	50
2.0 m/s	35	40	–	55
2.5 m/s	35	40	50	60
3.0 m/s	35	40	55	65

3. The state of the elevator should be maintained before self-learning: inspection state, safety circuit connected, door lock circuit connected;

4. Perform shaft self-learning (set L1 to 00000001)

Before the shaft self-learning, the elevator can stop at anywhere. After starting the shaft self-learning, the elevator will first go down and stop after the lower limit switch action (when there are only 2 floors, it must meet the leveling switch detach from the leveling baffle and the lower limit switch action); Then run upward, start to record the well data, stop when the elevator runs to the top floor level, display "self-learning success" on the handheld LCD operator, press "ENTER" to confirm that the well self-learning is completed.

Self-learning should pay attention to the problem: the normally open/normally closed leveling switch must be set correctly. The system can automatically detect the three types of faults, such as leveling switch reversal, pulse direction reversal, and terminal switch reversal, but it is recommended that you check before self-learning, otherwise if the floor is high, re-self-learning will waste a lot of time. In the process of self-learning, if not necessary, do not operate the LCD operator. After the self-learning is completed, "Self-learning succeeded" is displayed. Press ENTER to confirm and save the information and exit the shaft self-learning.

7.7 Fast run (The parameters in this section are the parameters in "Parameter Adjustment")

7.7.1 Check before the fast run

1. After self- learning, make the elevator enter the "automatic" state.
2. Check whether the communication is normal:If the car communication is normal, "#" will be displayed on the upper left of the handheld LCD operator.

If hall door communication is normal, and the number of hall calls will be displayed on the upper left of the handheld LCD operator on the mainboard.

If parallel and group control communication are normal, * will be displayed on the upper left of the handheld LCD operator on the mainboard.

3. Check whether the door operation is running normally and whether it can open and close automatically.

If the display gate limit is faulty, please first make sure that the door operation is powered on and connected correctly, then enter the "car input monitoring" menu on the handheld LCD operator to check the status of 3 and 4 (whether there is a * mark before the number), and then change the corresponding CX3 and CX4 parameters in the J3 parameter normally open and normally closed Settings.

a. If the parameters CX3 and CX4 are normally closed with1, it will display *3 and 4 when the car door is closed , display 3, *4 when the car door is opened, display *3, *4 when the car door is in the middle.

b. If the parameters CX3 and CX4 are both normally opened with 0, it will display 3, *4 when the car door is closed , display*3, 4 when the car door is opened, display 3, 4 when the car door is in the middle.

c. If the door can be opened automatically, but keep it open after opening the door: please enter the "Car input monitoring" on the handheld LCD operator to check the input of each function point: Display *1(door open button, when no one operates the car, the door open button may be stuck, or the wiring is wrong), display *11(overload, which may be the overload switch position is not adjusted properly, or the normally on/normally off setting of the CX11), and display 14(safety touch board, which may be the normally on/normally off setting of the CX14, or the safety touch board is incorrectly connected).

If the door automatically can be opened and closed properly, but is closed immediately after the door is opened, or the door is closed before it opens where it should be: please enter the "parameter adjustment" on the handheld LCD operator on the motherboard, and increase the value of C3, C4, and C5 parameters.

7.7.2 Run the elevator once at various speeds in the machine room (when controlled by analog)

Observe whether the elevator will rush through the leveling when running at the highest speed (99% of the rated speed). If it rushes through, it means that the deceleration switch is installed in the wrong position and the distance of deceleration is too short. So the deceleration switch should be adjusted and motor tune up again;

Observe whether the elevator deceleration time is very long when running at the highest speed (99% of the rated speed). If the deceleration time is long, it indicates that the deceleration switch is installed in the wrong position and the deceleration distance is too long. So the deceleration switch should be adjusted and motor tune should be done.

Observe the deceleration time of each speed, and slightly adjust the D7, D8, D9, and D10 parameters on the handheld LCD operator on the motherboard (if they have been set according to the reference value, do not modify them).

7.7.3 Leveling adjustment

On the same floor: If the leveling is lower when going up and higher when going down, C6 parameter should be increased;

If the leveling is higher when going up and lower when going down, the C6 parameter should be reduced.

On all floors: If the leveling is lower when going up and higher when going down, H6 parameter should be increased;

If the leveling is higher when going up and lower when going down, the H6 parameter should be reduced.

When adjusting the leveling accuracy, the C6 and H6 parameters can be modified by referring to the leveling error value displayed on the liquid crystal operator. When the level error value is positive, it means that the elevator is higher than the level position. And when the level error value is negative, it means that the elevator is lower than the level position.

7.7.4 Comfort adjustment

1. D7 ~ D10 parameters:Under the same circumstances, as the value increases, the speed of the elevator increases. It feels steeper and steeper as accelerating. As the

value decreases, the speed of the elevator decreases. It feels softer and softer as accelerating;

D11 ~ D14 parameter: Under the same circumstances, as the value increases, the speed of the elevator increases. It feels steeper and steepersofter and softer as accelerating. As the value decreases, the speed of the elevator decreases. It feels steeper and steeper as accelerating;

2. Deceleration curve adjustment:

D7 ~ D10 parameters: Under the same circumstances, as the value increases, the speed of the elevator increases. It feels steeper and steeper as decelerating. As the value decreases, the speed of the elevator decreases. It feels softer and softer as decelerating.

If the comfort of high-speed deceleration is not good, the distance of the long deceleration switch can be appropriately increased and the shaft motor tuning can be re-performed.

3. Elevator starting, parking instant comfort adjustment:

It feels uncomfortable when it starts: A. Adjust C1 parameters;

It feels uncomfortable when it parks: A. Adjust C2 parameters;

B. Adjust D1(zero speed level) parameters; (Too small value of D1 will cause parking delay; When the interference is too large, increase the D1 parameter appropriately)

C, The encoder pulse is interfered with, use the shielded wire, and the shielded layer is reliably grounded;

7.7.5 Other parameters need to be set

1. B1(floor display setting), A2(waiting base station), A3(fire base station), A4(locking base station), A5(key location);

2. Settings with parallel and group control : E1(local address, parallel set to 01, 02, teamwork set to 11, 12, 13, 14, 15, 16, 17, 18), E3(parallel base station);

3. Y2(time adjustment)

7.8 Synchronous motor starting comfort adjustment

1. If it is caused by the delay of brake opening, increase the value of P7 parameter;

2. If it is the case of backsliding after opening the brake, reduce the value of P6 parameter.

3. If the startup fails after modifying P6 and P7, increase the value of P10 to 200

~ 300.

7.9 Asynchronous motor starting comfort adjustment

If the asynchronous motor is backsliding when starting, adjust P1 to 40 and P2 to 0.25. The above data are empirical values, so the debugging personnel should adjust them appropriately according to the site situation.

7.10 Method for determining encoder line of synchronous motor

Because the Heidehan 1387 encoder on the market now has two different encoder lines (1. Monarch line; 2. STEP, XIWEI line), resulting in the field debugging personnel is not easy to distinguish between the two encoder lines, and debugging difficulties come out. So the encoder line is proposed to determine the method as follows:

Method 1:

1. Clear all faults in the fault record; (Easy to check later)

2. Manually open the brake, rotate the traction sheave in one direction at a low speed and uniform speed for 5 seconds, and close the lock;

y F23. Enter the fault record and check whether the PG line is abnormal. If it is abnormal, modif1 in the B8 parameter.

Method 2：

1. Enter "Data Monitoring" in the "Status Monitoring" menu.

```
PG AB:   160000
PG CD:   5600
PG Z :   100     0
PG PPR:  2048
```

0 represents the difference value between the encoder

2. Manually open the brake to make the traction sheave rotate in one direction. If the data of PG AB and PG CD increase or decrease at the same time, it means the F21 in parameter B8 is set correctly. If one of the two increases and the other decreases, modify F21 in the B8 parameter.

Method 3:

Turn on the F65 "Power-on setting" function in B8 parameter. After power-on motor tuning, the system will automatically detect the encoder line during the first run. If the encoder line is incorrectly selected (F21 "PG line selection" in B8 parameter), the "PG line Abnormal" fault will be reported. In this case, change F21 in B8.

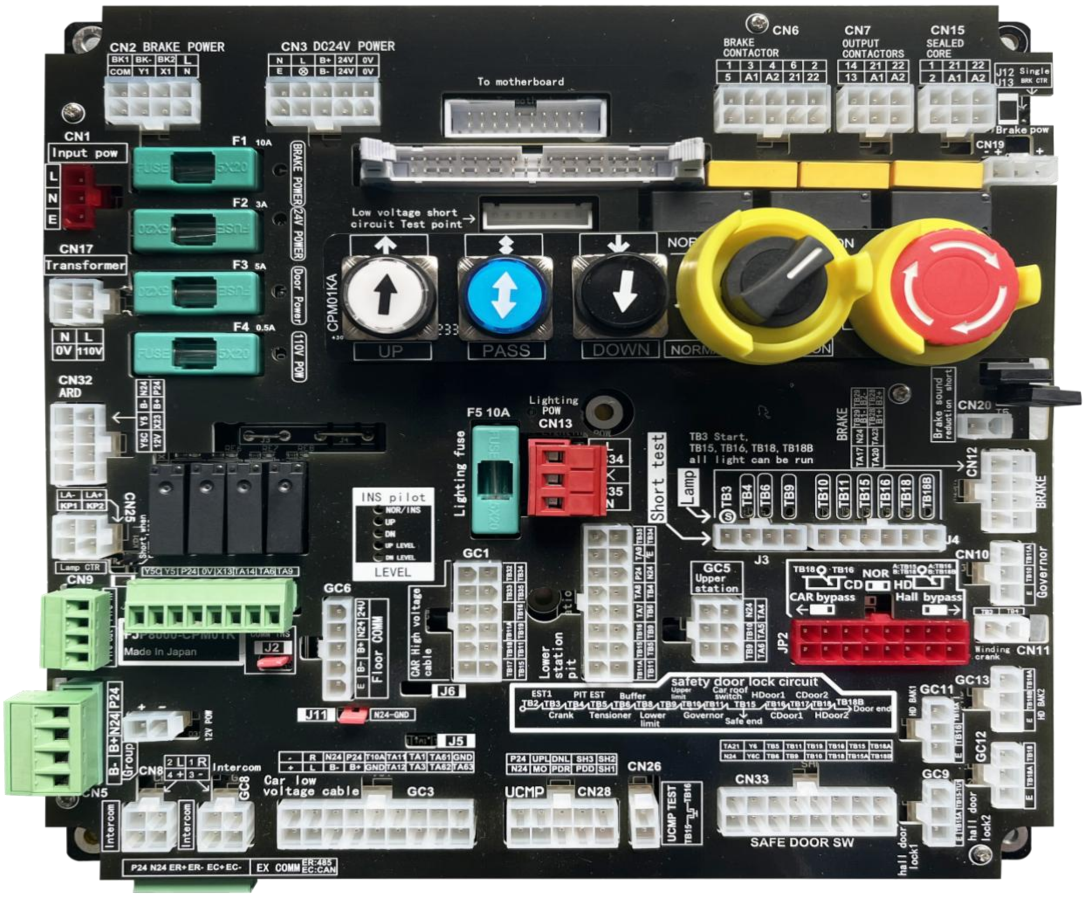
Chapter 8 Part choose

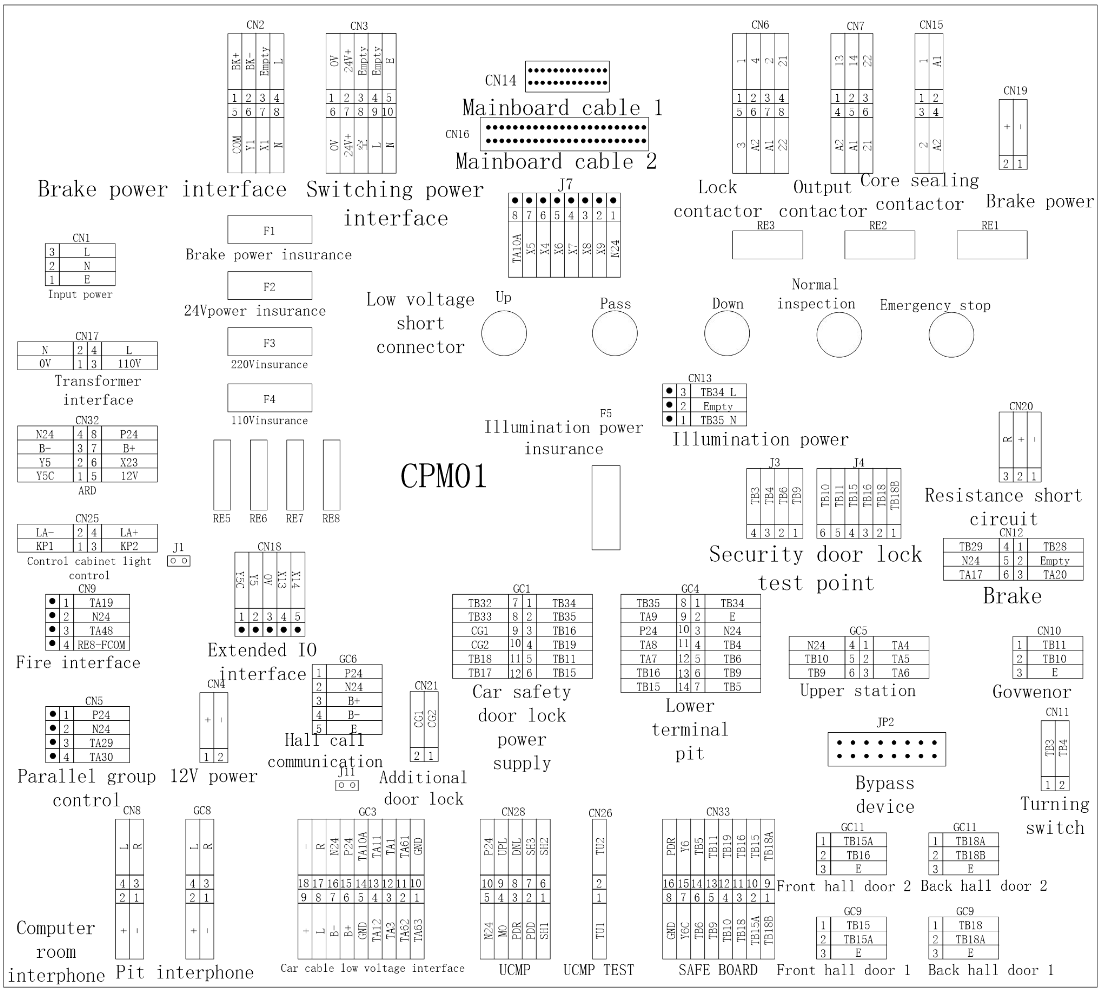
8.1 Interface board CPM01 of the control cabinet

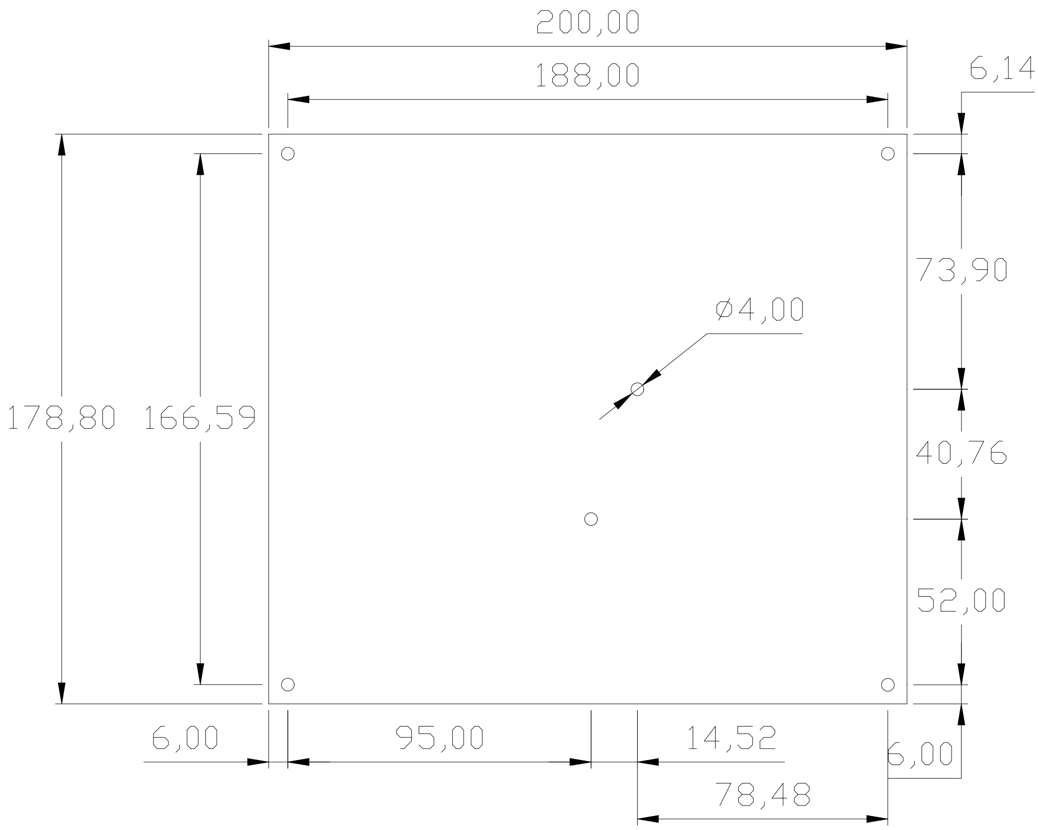
8.1.1 Name and size of interface board CPM01 of the control cabinet

CPM01 is the interface board of the control cabinet. It collects input and output signals, the safety switch of the control cabinet, the inspection switch of the control cabinet, the up button and down button of the inspection of the control cabinet, and the function of door lock bypass.

Dimensions and installation method are shown in the following figure:



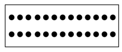
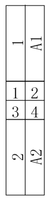
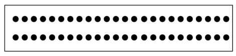
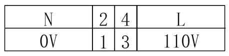
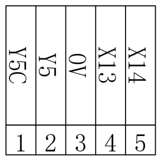
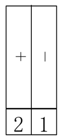
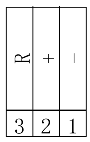
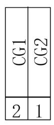
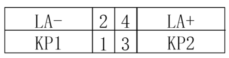

CPM01
Brake power interface
Switching power interface
Mainboard cable 1
Mainboard cable 2
Lock contactor
Output contactor
Core sealing contactor
Brake power
Input power
Brake power insurance
24Vpower insurance
220Vinsurance
110Vinsurance
Transformer interface
ARD
Control cabinet light control
Low voltage short connector
Up
Pass
Down
Normal inspection
Emergency stop
Illumination power insurance
Illumination power
Resistance short circuit
Security door lock test point
Brake
Fire interface
Extended IO interface
Car safety door lock power supply
Lower terminal pit
Upper station
Govwenor
Parallel group control
12V power
Hall call communication
Additional door lock
Bypass device
Turning switch
Computer room interphone
Pit interphone
Car cable low voltage interface
UCMP
UCMP TEST
SAFE BOARD
Front hall door 2
Back hall door 2
Front hall door 1
Back hall door 1

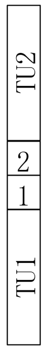
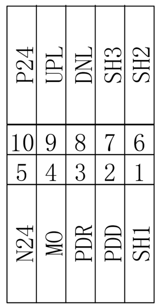
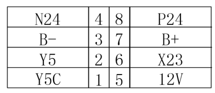
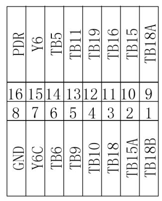

200,00
188,00
6,14
73,90
Ø4,00
40,76
52,00
178,80
166,59
6,00
95,00
14,52
6,00
78,48

8.1.2 CPM01 board terminal, jumper, indicator description:

Identification			Name	Function Instructions	Distribution and description
CN1	1	E	E	Ground wire	3 L 2 N 1 E
	2	N	N	zero wire	
	3	L	L	Connect with AC220V power supply	
CN2			Brake power interface	Connect with power and brake power box	BK+ BK- Vacancy L 1 2 3 4 5 6 7 8 COM Y1 X1 N
CN3			Power interface	Connect with power and brake power box	0V 24V+ Vacancy Vacancy E 1 2 3 4 5 6 7 8 9 10 0V 24V+ Vacancy L N
CN4				Power12v interface	+ − 1 2
CN5	1	P24	P24	Parallel and group control powers	1 P24 2 N24 3 TA29 4 TA30
	2	N24	N24		
	3	TA29	communication+	Parallel and group control powers	
	4	TA30	Communication-		
CN6	1	BRC-1	Brake loop	Brake contactor normally open contact	1 4 2 21 1 2 3 4 5 6 7 8 3 A2 A1 22
	2	BRC-4	Brake loop	Brake contactor normally open contact	
	3	BRC-2	Brake loop	Brake contactor normally open contact	
	4	BRC-21	Contactor feedback signal	Brake contactor normally close contact	
	5	BRC-3	Brake loop	Brake contactor normally open contact	
	6	BRC-A2	Coil	Brake contactor coil	
	7	BRC-A1	Coil	Brake contactor coil	
	8	BRC-22	Contactor	Brake contactor	

			feedback signal	normally close contact	
CN7	1	CC-13	Brake loop	Running contactor normally open contact	13 14 22 1 2 3 4 5 6 A2 A1 21
	2	CC-14			
	3	CC-22	Contactor feedback signa	Running contactor normally open contact	
	4	CC-A2	Coil	Running contactor coil	
	5	CC-A1			
	6	CC-21	Contactor feedback signal	Running contactor normally close contact	
CN8	1	-	-Interphone-	Connect with interphone of machine room	L R 4 3 2 1 + -
	2	+	Interphone+		
	3	R	Interphone communication R		
	4	L	Interphone communication L		
CN9	4	RE8-FCOM		Fire output	1 TA19 2 N24 3 TA48 4 RE8-FCOM
	3	TA48			
	2	N24		Fire input	
	1	TA19			
CN10	1	TB11	Safety loop	Connect with governor	1 TB11 2 TB10 3 E
	2	TB10	Safety loop		
	3	E	Groud wire	Groud wire	
CN11	1	TB3	Safety loop	Connect with manuel wheel switch	TB3 TB4 1 2
	2	TB4	Safety loop		
CN12	1	TB28	Brake coil-	Connect with brake coil	TB29 4 1 TB28 N24 5 2 Vacancy TA17 6 3 TA20
	2				
	3	TA20	Brake switch2	Connect with brake switch	
	4	TB29	Brake coil+	Connect with brake coil	
	5	N24	N24	Common wire	
	6	TA17	Brake switch1	Connect with brake switch1	
CN13	3	TB34	AC220V	Input mains AC220V	3 TB34 L 2 Empty 1 TB35 N
	2				
	1	TB35	AC220V	Input mains AC220V	

CN14			Main board cable	Connect with all-in-one machine mainboard	
CN15	1	FC-1		Core sealing contactor normally open contact	
	2	FC-A1		Core sealing contactor coil	
	3	FC-2		Core sealing contactor normally open contact	
	4	FC-A2		Core sealing contactor coil	
CN16			Main board cable	Connect with all-in-one machine mainboard	
CN17	1	0V	Transformer output	Transformer input and output	
	2	N	Transformer Transformer input		
	3	110V	Transformer output		
	4	L	Transformer input		
CN18	1	Y5C		Alternate output point	
	2	Y5			
	3	0V		Common line	
	4	X13		Common wire	
	5	X14			
CN19				Brake power switch	
CN20				Continuing resistance short circuit	
CN21	1	CG2		Additional door lock	
	2	CG1			
CN25	1	KP1		Door switch of control cabinet in machine-room-less	
	2	LA-		Control cabinet illumination in machine-room-less	

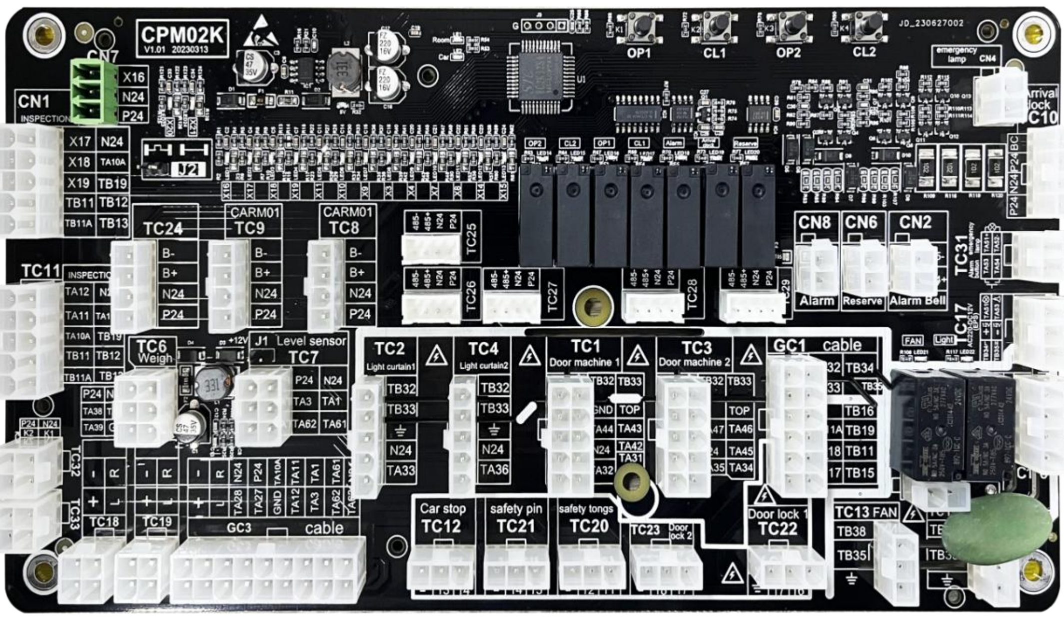
	3	KP2		Door switch of control cabinet in machine-room-less	
	4	LA+		Control cabinet illumination in machine-room-less	
CN26	1	TU1		UCMP board connect with terminal	
	2	TU2			
CN28	1	SH1		UCMP board connect with terminal	
	2	PDD			
	3	PDR			
	4	MO			
	5	N24PDC			
	6	SH2			
	7	SH3			
	8	DNL			
	9	UPL			
	10	P24			
CN32				ARD	
CN33				SAFE BOARD	
GC1			Travelling cable	Car power，safety，door lock	
GC3			Travelling cable	Car inspection, leveling, car communication	
GC4			Shaft cable	Lower end station, pit	
GC5			Shaft cable	Upper end station	
GC6			Shaft cable	Hall call communication	
GC8			Shaft cable	Interphone of pit	
GC9			Shaft cable	Front hall door lock1	

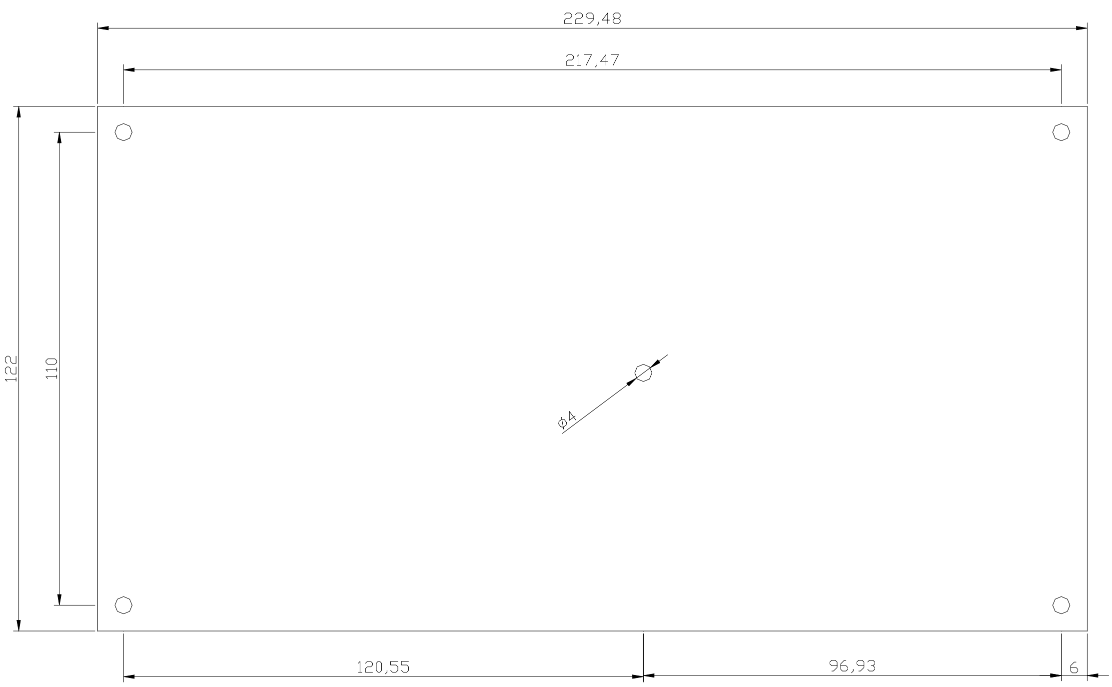
GC11			Shaft cable	Front hall door lock2	
GC12			Shaft cable	Back hall door lock1	
GC13			Shaft cable	Back hall door lock2	
J1			emergency power connect with power switch	Must be connect with machine-room-less control cabinet	
J3				Safety door lock test point	TB3 TB4 TB6 TB9 4 3 2 1
J4				Safety door lock test point	TB10 TB11 TB15 TB16 TB18 TB18B 6 5 4 3 2 1
J7			Low voltage terminal interface	Short circuit upper short deceleration, upper long deceleration, up limit, lower short deceleration, lower long deceleration, down limit and car top inspection after connecting.Disconnect them when aromatically operate.	8 7 6 5 4 3 2 1 TA10A X5 X4 X6 X7 X8 X9 N24
J11		GND-N24		Ground wire connect with N24 after short circuiting.short circuit according to site conditions	
F1				Brake power fuse	
F2				24V power switch fuse	
F3				220V door operation fuse	
F4				110V power fuse	
F5				220V illustration power fuse	
JP2				Door lock bypass device	

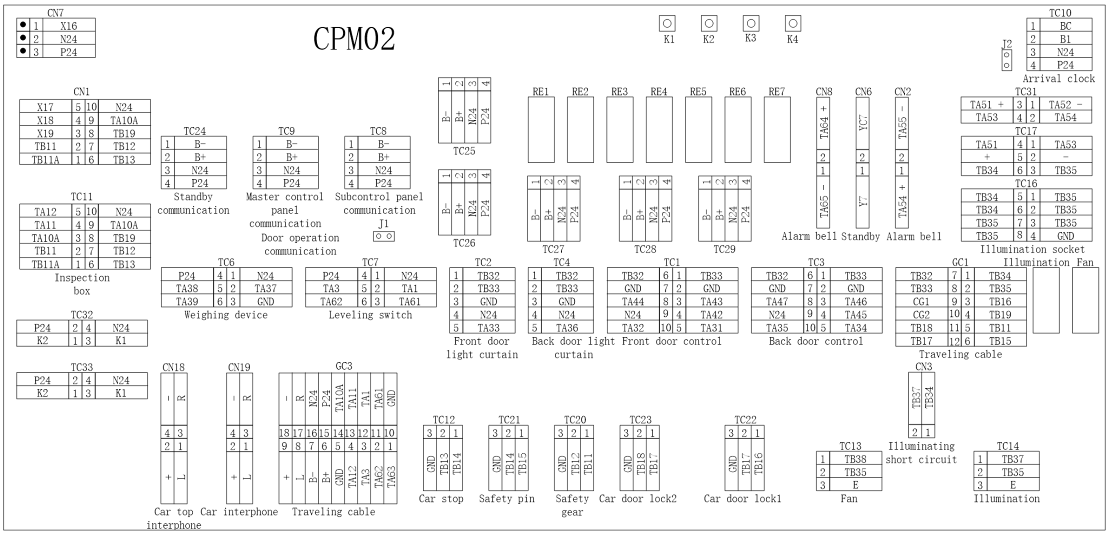
8.2 Car top interface and control board CPM02

8.2.1 CPM02 car top interface and name and size of control interface board terminal

CPM02 is the car top inspection interface board, including input and output signals and communicating with machine control cabinet and car board.







8.2.2 CPM02 board terminal, jumper, indicator description:

Identification			Name	Function instruction	Distribution and description
TC1	1	TB33	AC220	Front door operator power	TB32 6 1 TB33 GND 7 2 GND TA44 8 3 TA43 N24 9 4 TA42 TA32 10 5 TA31
	6	TB32			
	2	GND	GND		
	4	TA42	Common terminal	Front door opening and closing order common terminal	
	3	TA43	Open the door order	Front door opening order	
	8	TA44	Close door order	Front door closing order	
	9	N24	N24	Front door opening and closing limit common terminal	
	5	TA31	OPD limit	FOPD limit	
	10	TA32	CLD limit	FCLD limit	
TC2	1	TB33	AC220	Front door light curtain power	1 TB32 2 TB33 3 GND 4 N24 5 TA33
	2	TB32			
	3	GND	GND		
	4	N24	N24	Front Door light curtain signal common terminal	
	5	TA33	Light curtain signal	Front light curtain signal	

<table>
<tr><td rowspan="10">TC3</td><td>1</td><td>TB33</td><td rowspan="2">AC220</td><td rowspan="3">Back door operation power</td><td rowspan="10"><table><tr><td>TB32</td><td>6</td><td>1</td><td>TB33</td></tr><tr><td>GND</td><td>7</td><td>2</td><td>GND</td></tr><tr><td>TA47</td><td>8</td><td>3</td><td>TA46</td></tr><tr><td>N24</td><td>9</td><td>4</td><td>TA45</td></tr><tr><td>TA35</td><td>10</td><td>5</td><td>TA34</td></tr></table></td></tr>
<tr><td>6</td><td>TB32</td></tr>
<tr><td>2</td><td>GND</td><td>GND</td></tr>
<tr><td>4</td><td>TA45</td><td>Common terminal</td><td>Back door opening and Close orders common terminal</td></tr>
<tr><td>3</td><td>TA46</td><td>Door opening order</td><td>Back door open order</td></tr>
<tr><td>8</td><td>TA47</td><td>Door closing order</td><td>Back door closing order</td></tr>
<tr><td>9</td><td>N24</td><td>N24</td><td>Back door open and close limit common terminals</td></tr>
<tr><td>5</td><td>TA34</td><td>OPD limit</td><td>BOPD limit</td></tr>
<tr><td>10</td><td>TA35</td><td>CLD limit</td><td>BCLD limit</td></tr>
<tr><td rowspan="5">TC4</td><td>1</td><td>TB33</td><td rowspan="2">AC220</td><td rowspan="3">Back door light curtain power</td><td rowspan="5"><table><tr><td>1</td><td>TB32</td></tr><tr><td>2</td><td>TB33</td></tr><tr><td>3</td><td>GND</td></tr><tr><td>4</td><td>N24</td></tr><tr><td>5</td><td>TA36</td></tr></table></td></tr>
<tr><td>2</td><td>TB32</td></tr>
<tr><td>3</td><td>GND</td><td>GND</td></tr>
<tr><td>4</td><td>N24</td><td>N24</td><td>Back door light curtain signal common terminal</td></tr>
<tr><td>5</td><td>TA36</td><td>Light curtain signal</td><td>Back light curtain signal</td></tr>
<tr><td rowspan="5">TC6</td><td>4</td><td>P24</td><td>P24</td><td rowspan="5">To the weighting device</td><td rowspan="5"><table><tr><td>P24</td><td>4</td><td>1</td><td>N24</td></tr><tr><td>TA38</td><td>5</td><td>2</td><td>TA37</td></tr><tr><td>TA39</td><td>6</td><td>3</td><td>GND</td></tr></table></td></tr>
<tr><td>1</td><td>N24</td><td>N24</td></tr>
<tr><td>2</td><td>TA37</td><td>LLoad</td></tr>
<tr><td>5</td><td>TA38</td><td>FLoad</td></tr>
<tr><td>6</td><td>TA39</td><td>OLoad</td></tr>
<tr><td rowspan="6">TC7</td><td>4</td><td>P24</td><td>P24</td><td rowspan="2">leveling switch power</td><td rowspan="6"><table><tr><td>P24</td><td>4</td><td>1</td><td>N24</td></tr><tr><td>TA3</td><td>5</td><td>2</td><td>TA1</td></tr><tr><td>TA62</td><td>6</td><td>3</td><td>TA61</td></tr></table></td></tr>
<tr><td>1</td><td>N24</td><td>N24</td></tr>
<tr><td>2</td><td>TA1</td><td>UPL</td><td rowspan="4">Leveling open and close signal
Releveling open and lose signal</td></tr>
<tr><td>3</td><td>TA61</td><td>Upper releveling</td></tr>
<tr><td>5</td><td>TA3</td><td>DNL</td></tr>
<tr><td>6</td><td>TA62</td><td>Down releveling</td></tr>
<tr><td rowspan="4">TC8</td><td>4</td><td>P24</td><td>P24</td><td rowspan="4">To subcontrol panel communication</td><td rowspan="4"><table><tr><td>1</td><td>B-</td></tr><tr><td>2</td><td>B+</td></tr><tr><td>3</td><td>N24</td></tr><tr><td>4</td><td>P24</td></tr></table></td></tr>
<tr><td>3</td><td>N24</td><td>N24</td></tr>
<tr><td>2</td><td>B+</td><td>Communication+</td></tr>
<tr><td>1</td><td>B-</td><td>Communication-</td></tr>
<tr><td rowspan="4">TC9</td><td>4</td><td>P24</td><td>P24</td><td rowspan="4">To master control panel communication</td><td rowspan="4"><table><tr><td>1</td><td>B-</td></tr><tr><td>2</td><td>B+</td></tr><tr><td>3</td><td>N24</td></tr><tr><td>4</td><td>P24</td></tr></table></td></tr>
<tr><td>3</td><td>N24</td><td>N24</td></tr>
<tr><td>2</td><td>B+</td><td>Communication+</td></tr>
<tr><td>1</td><td>B-</td><td>Communication-</td></tr>
</table>

TC10	4	P24	P24	Passing chime power	1 BC 2 B1 3 N24 4 P24
	3	N24	N24		
	2	B1	B1	Passing chime trigger signal	
	1	BC	BC		
TC11	1	TB13	Safety loop	Car top emergency stop switch	TA12 4 8 N24 TA11 3 7 TA10A Vacancy 2 6 TB19 TB13 1 5 TB12
	2				
	3	TA11	Up button	Inspection up button	
	4	TA12	Down button	Inspection down button	
	5	TB12	Safety loop	Car top emergency stop switch	
	6	TB19	Safety loop	Emergency operator loop	
	7	TA10A	Inspection	Connect with machine room inspection	
	8	N24	N24	Inspection common terminal	
TC12	1	TB14	Safety loop	Car top emergency stop switch	3 2 1 GND TB13 TB14
	2	TB13	Safety loop		
	3	GND		Ground wire	
TC13	3	E		Ground wire	1 TB38 2 TB35 3 E
	2	TB35	Car fan	Car fan	
	1	TB38			
TC14	3	E		Ground wire	1 TB37 2 TB35 3 E
	2	TB35	Car illumination	Car illumination	
	1	TB37			
TC15	4	P24	P24	To door operation communication	1 B- 2 B+ 3 N24 4 P24
	3	N24	N24		
	2	B+	Communication+		
	1	B-	Communication-		
TC16	4	GND		Ground wire	TB34 5 1 TB35 TB34 6 2 TB35 TB35 7 3 TB35 TB35 8 4 GND
	1	TB35	AC220V	Transmit AC220V to car door inspection box socket	
	2	TB35			
	3	TB35			
	7	TB35			
	8	TB35			
	5	TB34	AC220V		
	6	TB34			
TC17	3	TB35	AC220V		TA51 4 1 TA53

	6	TB34		Transmit AC220V to emergency power box	
	5	+	+	Interphone power+	
	2	-	-	power-	
	4	TA51	+	Emergency illumination power	
	1	TA53	+	Alarm bell power	
TC18				Interphone of car top	– R 4 3 2 1 + L
TC19				Interphone of car top	– R 4 3 2 1 + L
TC20	1	TB11	Safety loop	Safety gear switch	3 2 1 GND TB12 TB11
	2	TB12	Safety loop		
	3	GND		Ground wire	
TC21	1	TB15	Safety loop	Safety pin switch	3 2 1 GND TB14 TB15
	2	TB14	Safety loop		
	3	GND		Ground wire	
TC22	1	TB16	Safety loop	Car door lock 1 To the front car door lock	3 2 1 GND TB17 TB16
	2	TB17	Safety loop		
	3	GND		Ground wire	
TC23	1	TB17	Safety loop	Car door lock 2 To the back car door lock	3 2 1 GND TB18 TB17
	2	TB18	Safety loop		
	3	GND		Ground wire	
TC24	4	P24	P24	Standby Communication	1 B- 2 B+ 3 N24 4 P24
	3	N24	N24		
	2	B+	Communication+		
	1	B-	Communication-		

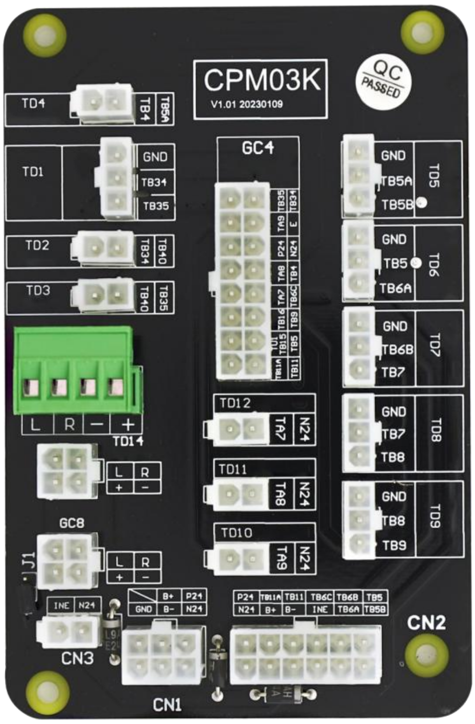
TC25				Front Door Operation Communication	1 2 3 4 B- B+ N24 P24
TC26				Front Door Light Curtain Communication	1 2 3 4 B- B+ N24 P24
TC27				Back Door Operation Communication	1 2 3 4 B- B+ N24 P24
TC28				Door Light Curtain Communication	1 2 3 4 B- B+ N24 P24
TC29				485 IC Card	1 2 3 4 B- B+ N24 P24
TC31	3	TA51	+	Car Emergency Light	TA51 + 3 1 TA52 − TA53 4 2 TA54
	1	TA52	-		
	4	TA53		Car Alarm Bell Button	
	3	TA54			
TC32				Retained in the Factory	P24 2 4 N24 K2 1 3 K1
TC33				Retained in the Factory	P24 2 4 N24 K2 1 3 K1
GC1			Travelling Cable	Car Power, Safety, Door Lock	
GC3			Travelling Cable	Car inspection, Leveling, Car Communication	
J1			Emergency Power Connect with Switch Power	Must be Connect with Machine-room-less Control Cabinet	
J2			TC10 Passing Chime Power Choose	Jump Cut with Internal Power Disconnect with External Power	
J19				Short Circuit with Back Car Door Lock. Disconnect with Back Car Door lock	
CN1				Use This Plug When Inspection Signal Using with Communication	X17 4 8 N24 X18 3 7 TA10A X19 2 6 TB19 TB13 1 5 TB12

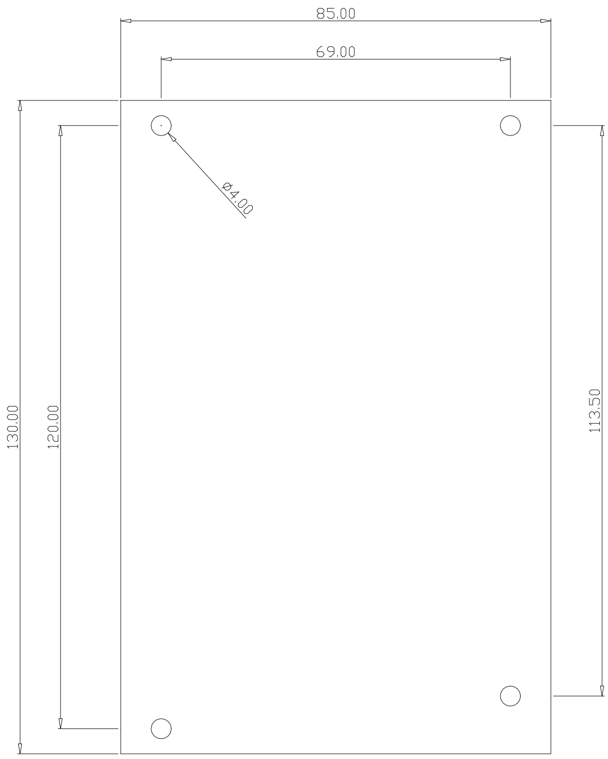
CN2				Alarm Bell	TA55 – / 2 / 1 / TA54 +
CN6				Alternate Outlet	YC7 / 2 / 1 / Y7
CN7				Alternate Inlet	1 X16 / 2 N24 / 3 P24
CN8				Alarm Light	TA64 + / 2 / 1 / TA65 –
CN4				Retained in the Factory	
K1				Front Door Open	
K2				Front Door Close	
K3				Back Door Open	
K4				Back Door Open	

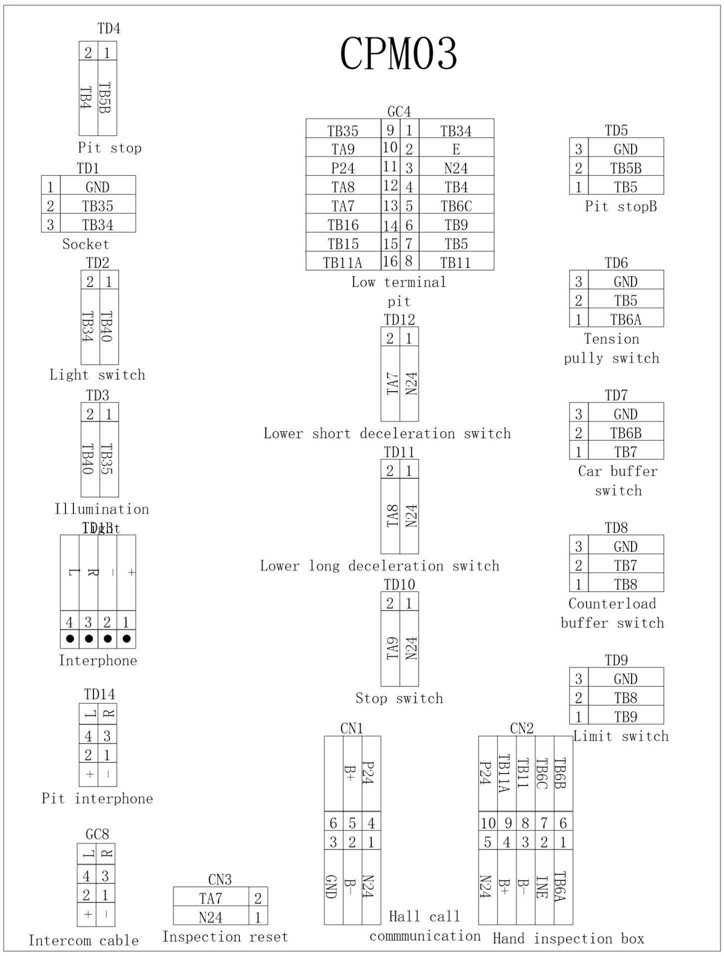
8.3 Pit interface board CPM03

8.3.1 CPM03 name and size of pit interface and interface board terminal

CPM03 is pit inspection box interface board.. The following figure shows the dimensions and installation method.







8.3.2 CPM03 board terminal instruction

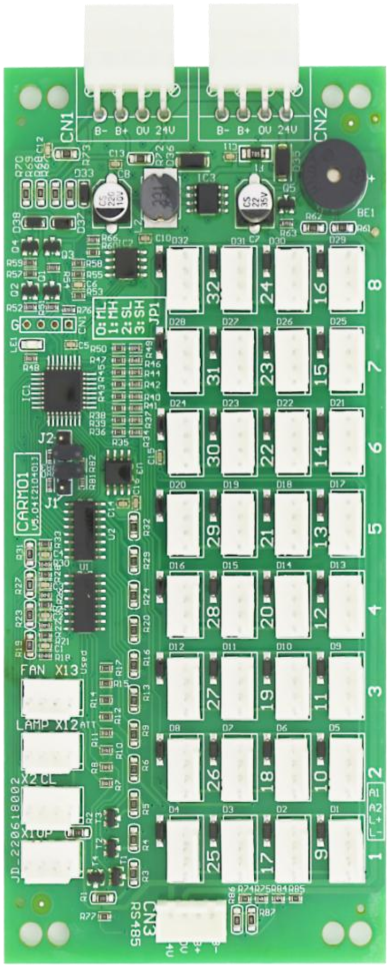
Identification			Name	Function identification	Distribution and description
TD1	3	GND		Ground wire	3 GND 2 TB35 1 TB34
	2	TB35	AC220V	Mains power AC220V Pit access box socket	
	1	TB34			
TD2	2	TB34	AC220V	Light switch for access box to bottom pit	2 1 TB34 TB40
	1	TB40			
TD3	2	TB40	AC220V	Mains power AC220V Pit access box light	2 1 TB40 TB35
	1	TB35			
TD4	2	TB4	Safety loop	Pit emergency stop switch	2 1 TB4 TB5B
	1	TB5B	Safety loop		
TD5	1	TB5B	Safety loop	Pit scram switch B	3 GND 2 TB5 1 TB5B
	2	TB5	Safety loop		
	3	GND		Ground wire	

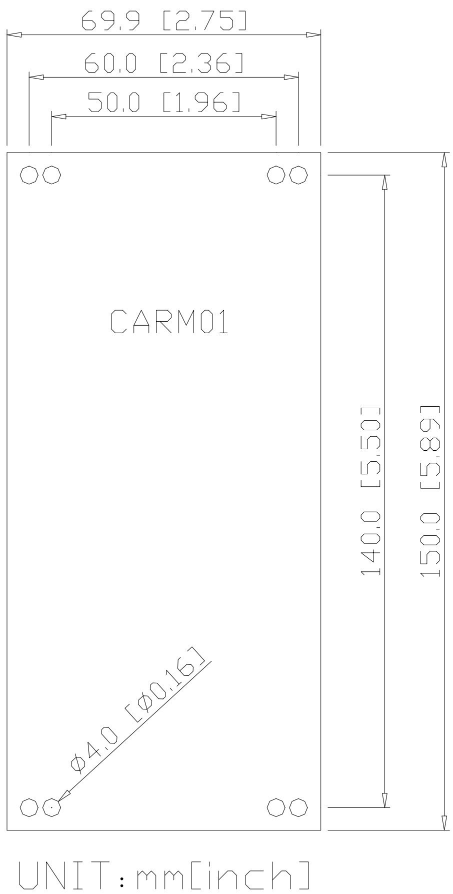
TD6	1	TB5	Safety loop	Expansion wheel switch	3 GND 2 TB6 1 TB5
	2	TB6	Safety loop		
	3	GND		Ground wire	
TD7	1	TB6	Safety loop	Car buffer switch	3 GND 2 TB7 1 TB6
	2	TB7	Safety loop		
	3	GND		Ground wire	
TD8	1	TB7	Safety loop	Counterload buffer switch	3 GND 2 TB8 1 TB7
	2	TB8	Safety loop		
	3	GND		Ground wire	
TD9	1	TB8	Safety loop	Lower limit switch	3 GND 2 TB9 1 TB8
	2	TB8	Safety loop		
	3	GND		Ground wire	
TD12	1	N24	Common wire	Lower short reduction switch	2 1 TA7 N24
	2	TA7	Down short deceleration		
TD11	1	N24	Common wire	Lower long speed reduction switch	2 1 TA8 N24
	2	TA8	Downward deceleration		
TD10	1	N24	Common wire	Lower limit switch	2 1 TA9 N24
	2	TA9	Lower limit		
TD13	1	+	+	Pit interphone	L R - + 4 3 2 1
	2	-	-		
	3	R	R		
	4	L	L		
TD14				Pit interphone	L R 4 3 2 1 + -
GC4			Shaft wire	Pit switch, bottom station switch, lighting	
GC8			Shaft wire	Pit interphone	

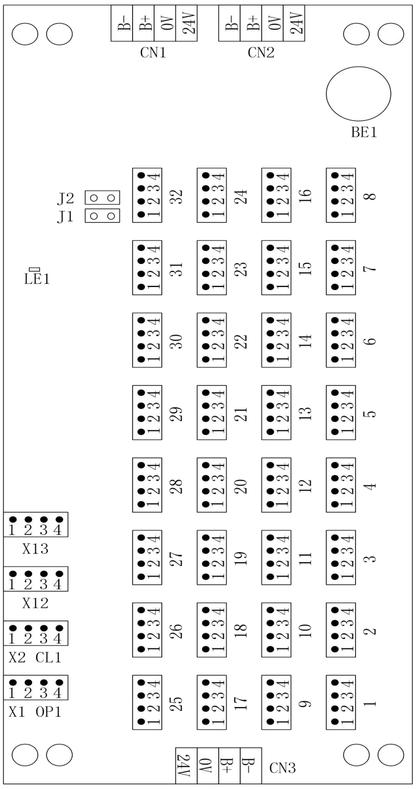
8.4 Car controller CARM01

8.4.1 Name and size of car controller terminal CARM01

CARM01 is a car controller, which collects car input signal and sends to car top CARM01 board by serial communication and be controlled by all-in-one main board.

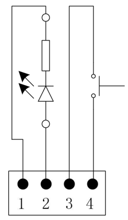
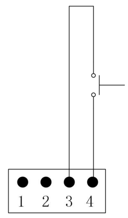
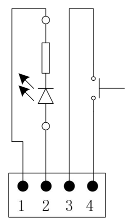






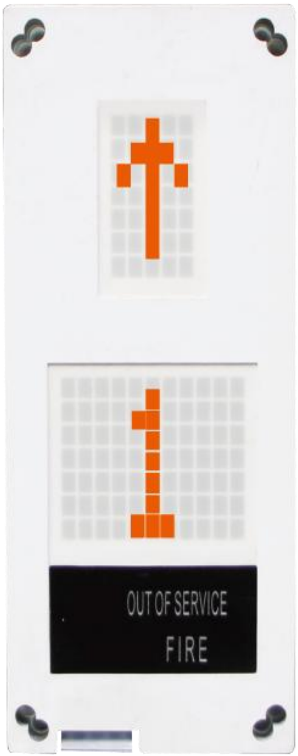
8.4.2 CARM01 board terminal, jumper, indicator Description:

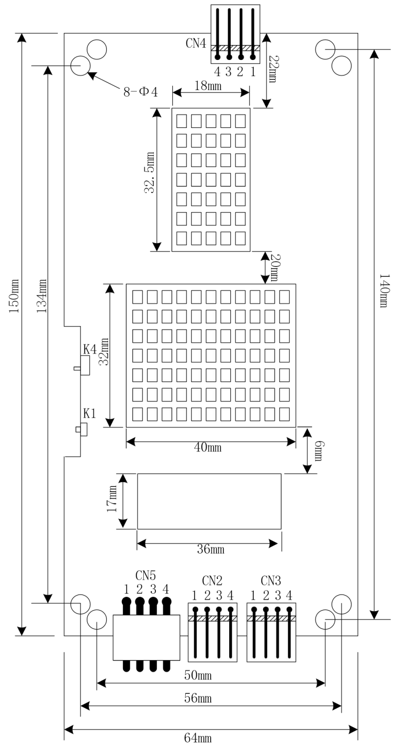
Identification			Name	Function identification	Distribution and description
CN1	1	P24	P24	Communication to CPM02B board	B– B+ 0V 24V
	2	N24	N24		
	3	B+	Communication+		
	4	B-	Communication-		
CN2	1	P24	P24	Communication to car display board	B– B+ 0V 24V
	2	N24	N24		
	3	B+	Communication+		
	4	B-	Communication-		
CN3	1	P24	P24	Standard 485 communication	24V 0V B+ B–
	2	N24	N24		
	3	B+	Communication+		
	4	B-	Communication-		
LE1				Communication light	
BE1			Buzzer	Overload and use for specific functions	
J1			Function selection	J2 J1 This state is primary control panel 1-32 laye J2 J1 This state is 33-64 lay of the main control pan J2 J1 This state is sub-contr panel 1-32 layer	J2 J1
J2					

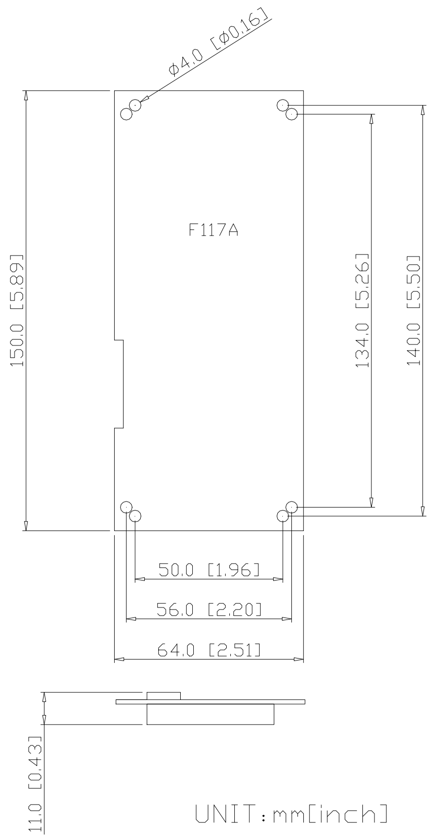
X1				Door opening button	
X2				Door closing button	
X12				Driver	
X13				Specification	
1~32				The Settings selected according to J1 and J2 functions are: 1. Call buttons and indicators on floors 1 to 32 2. Call buttons and indicators on floors 33 to 64 You can set the input port in J5 Call Interface Settings. For example, if you need to set the call interface on the 32nd floor as the front door opening button, first you need to set the "X1:330 front door opening button" to "X1:0 0 no function" in J3, and set F32 to 55 (33+32) in J5. The reason why you need to set it to 55 is that the function code of the front door opening button is 33 and you need to plus 32. If you want to set to "door hold", the function code of the door holding is 51, plus 32. Then you need to set 83 in J5. Noting that the functions set in J5 are "normally on".	

8.5 Floor display panel - straight standard ultra-thin F117A4

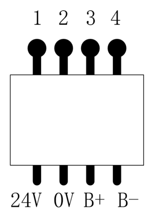
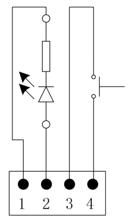
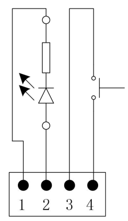
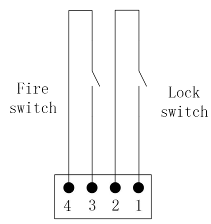
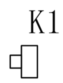
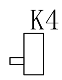
8.5.1 F117A4 terminal names and dimensions are shown in the following figure





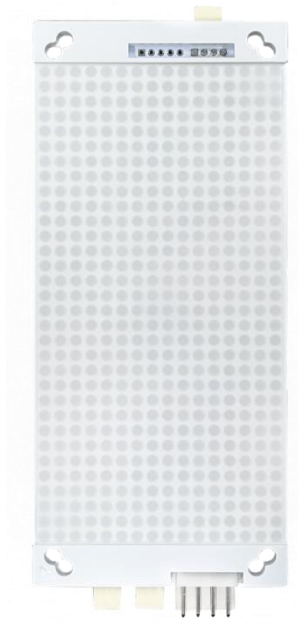


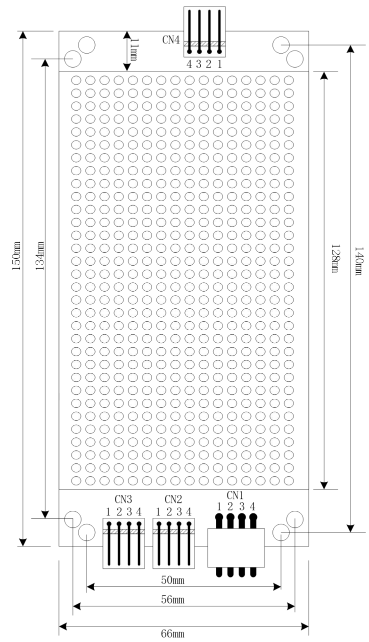
8.5.2 Floor display board terminal description

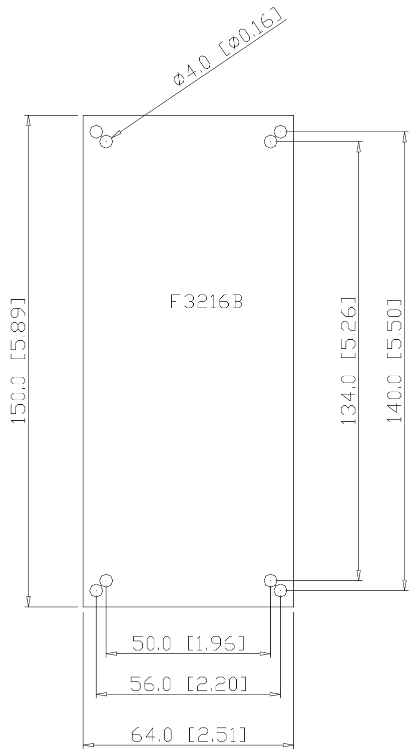
Terminal name	Function definition	Terminal wiring description
CN5	Serial communication and power line terminal, 4PIN interface, Pin 1, pin 2 are power connection pins, and pin 3 and pin 4 are H485 communication line pins.	
CN2	Up calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN3	Down calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN4	Lock switch input pin 1 and 2 ; Fire switch input pin 3 and 4	
K1	For floor address setting: Press and hold the K1 button to set the floor address state. At this time, press the up/down call button to set the floor corresponding to the hall call controller of the floor, and release the K1 button after setting.	
K4	The terminal resistance is active when K4 is turned to the ON. (Notice: The lowest hall door controller must be turned to the ON, and only one K4 of elevator can be turned to ON)	

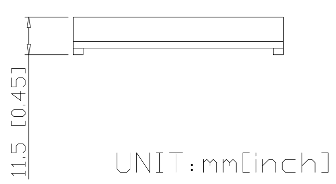
8.6 Floor Display Panel - Straight Multi-point Formation F3216B

8.6.1 F3216B terminal name and dimensions are shown in the following figure.

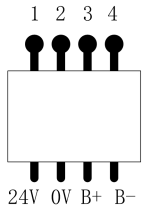
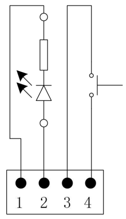
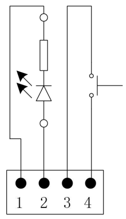
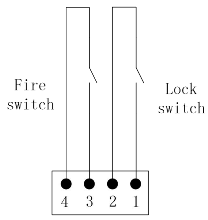
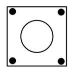
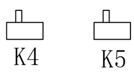
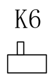






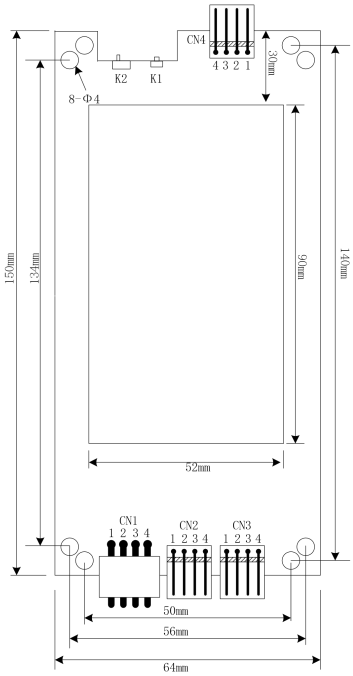


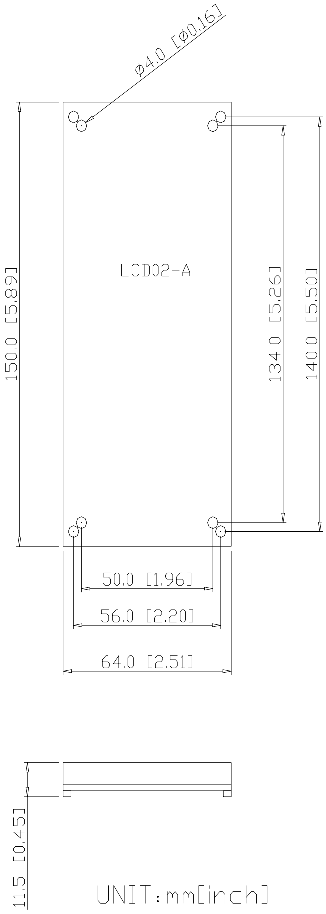
8.6.2 F3216B Floor display board terminal description

Terminal name	Function definition	Terminal wiring instruction
CN1	Serial communication and power line terminal, 4PIN interface, Pin 1, pin 2 are power connection pins, and pin 3 and pin 4 are H485 communication line pins.	
CN2	Up calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN3	Down calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN4	Lock switch input pin 1 and 2 ; Fire switch input pin 3 and 4	
K1	For floor address setting: Press and hold the K1 button to set the floor address state. At this time, press the up/down call button to set the floor corresponding to the hall call controller of the floor, and release the K1 button after setting.	
K4	The terminal resistance is active when K4 and K5 are turned to the ON. (Notice: The lowest hall door controller must be turned to the ON, and only one K4 and K5 of elevator can be turned to ON)	
K5		
K6	K6 is displayed horizontally when turned to the ON position and vertically when dialed to the OFF position	

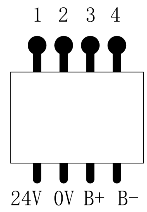
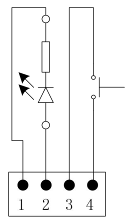
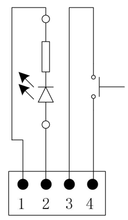
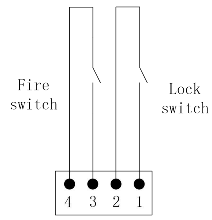
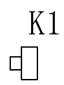
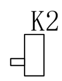
8.7 LCD floor display panel LCD02-A

8.7.1 LCD02-A terminal name and dimensions are shown in the following figure.



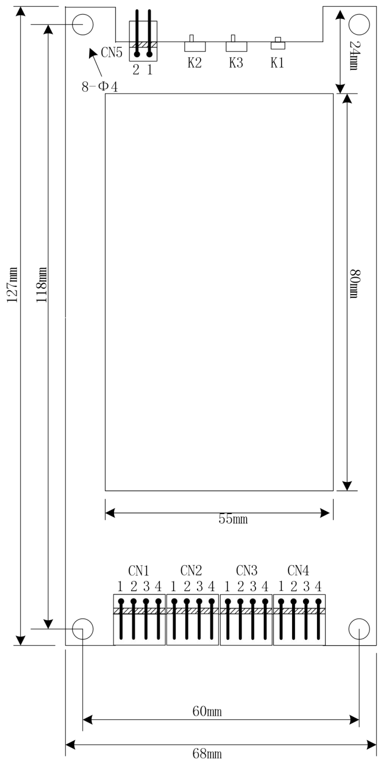


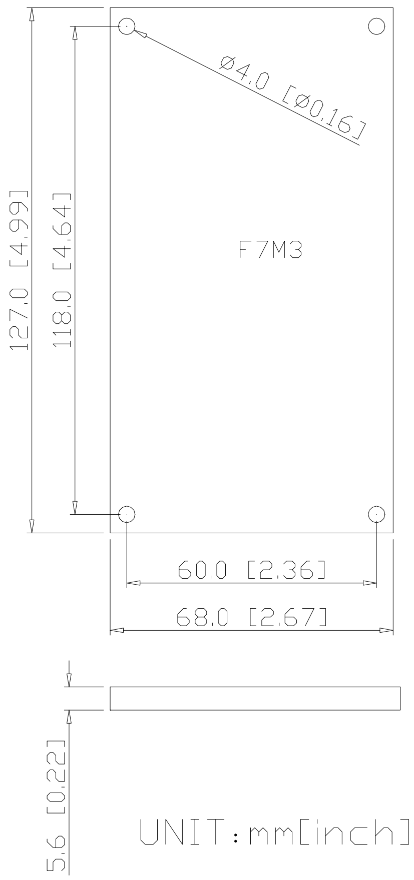
8.7.2 LCD02-A Floor display board terminal description

Terminal name	Function definition	Terminal wiring instruction
CN1	Serial communication and power line terminal, 4PIN interface, Pin 1, pin 2 are power connection pins, and pin 3 and pin 4 are H485 communication line pins.,	
CN2	Up calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN3	Down calling landing button interface, pin 3 and pin 4 are the input switching quantity wiring pins. Pin 1 and pin 2 are power wiring pins for the control of button lights (24Vdc output, 50mA load capacity)	
CN4	Lock switch input pin 1 and 2 ; Fire switch input pin 3 and 4	
K1	For floor address setting: Press and hold the K1 button to set the floor address state. At this time, press the up/down call button to set the floor corresponding to the hall call controller of the floor, and release the K1 button after setting.	
K2	The terminal resistance is active when K2 are turned to the ON. (Notice: The lowest hall door controller must be turned to the ON, and only one K2 of elevator can be turned to ON)	

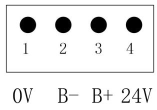
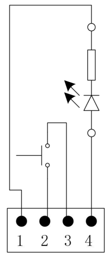
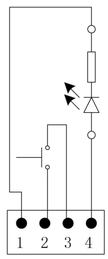
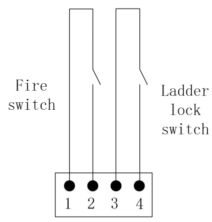
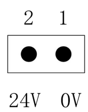
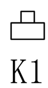
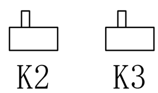
8.8 Floor display board -straight standard slim F7M3

8.8.1 F7M3 group controller terminal and size



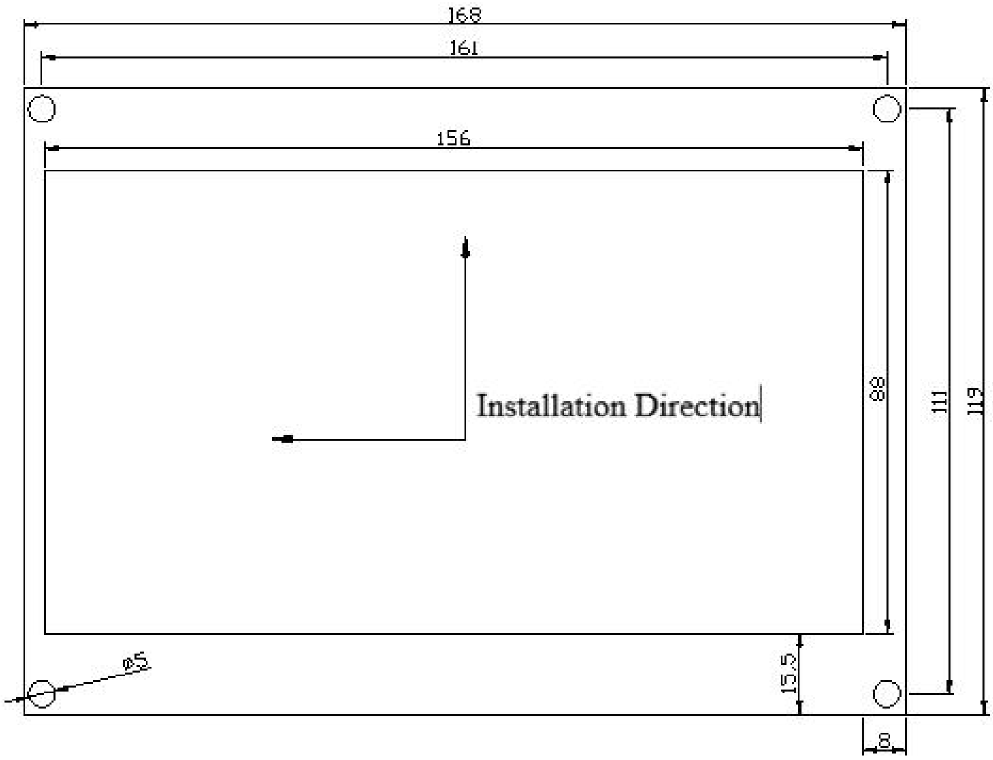


8.8.2 F7M3 Floor Display Board Port Description

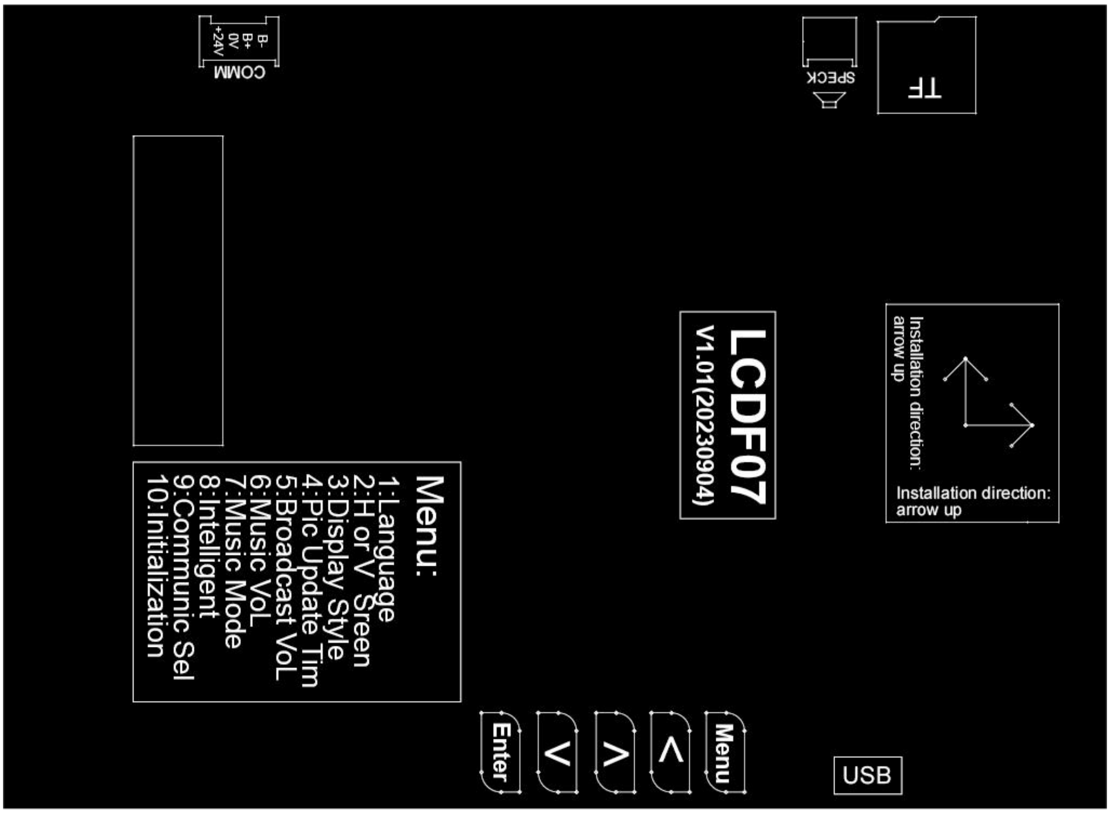
Terminal Name	Functional definition	Terminal wiring Instructions
CN1	Serial communication and power line terminal, 4PIN connector, pins 1 and 2 are power line pins, pins 3 and 4 are H485 communication line pins.	
CN2	For the upward call button interface, pins 3 and 4 are input switching wiring pins; Pins 1 and 2 are power supply wiring pins for push button lamp control (24Vdc output, 50mA load capacity).	
CN3	The downward elevator push button interface, pins 3 and 4 are input switching wiring pins; Pins 1 and 2 are power supply wiring pins for push button lamp control (24Vdc output, 50mA load capacity).	
CN4	Pins 1 and 2 are locking ladder switch inputs; Pins 3 and 4 are fire switch inputs.	
CN5	Spare DC24V power output port	
K1	For floor address setting: Press and hold the K1 button for setting the floor address state, at this time, press the up call button/down call button to set the floor corresponding to the outgoing call controller of the floor, release the K1 button after the setting is completed.	
K2 K3	When K2 and K3 are set to ON position, the terminating resistor is effective. (Note: the lowest outgoing call controller must be dialed to the ON position, and there can only be one piece of outgoing call controller on an elevator with K2 and K3 dialed to the ON position)	

8.9 Picture machine LCDF07

8.9.1 LCDF07 terminal names and dimensions are as follows



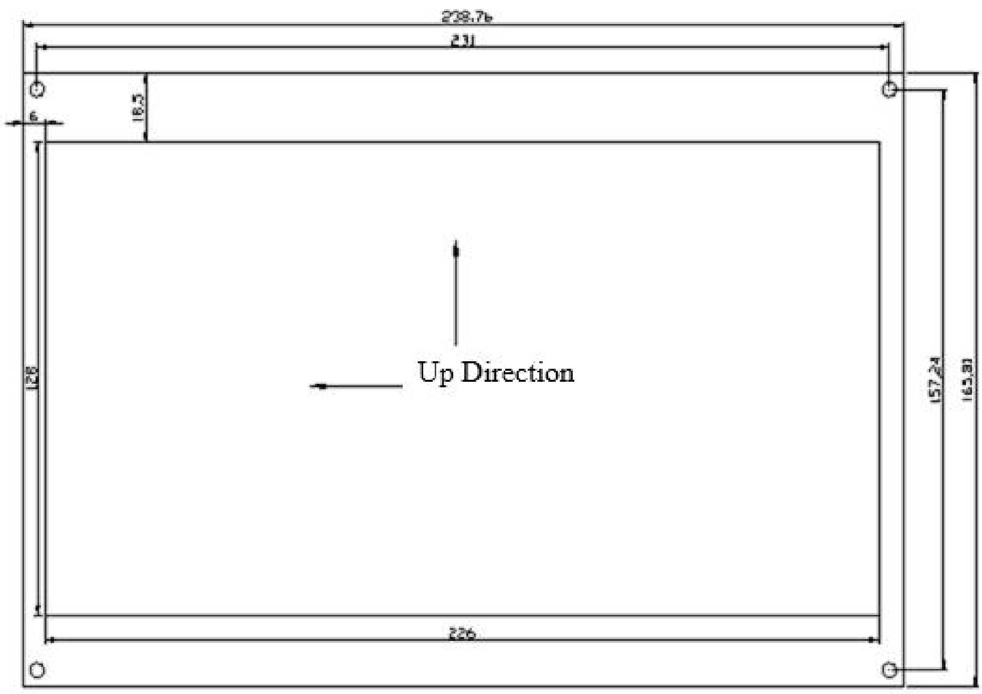
8.9.2 LCDF07 keys and ports:



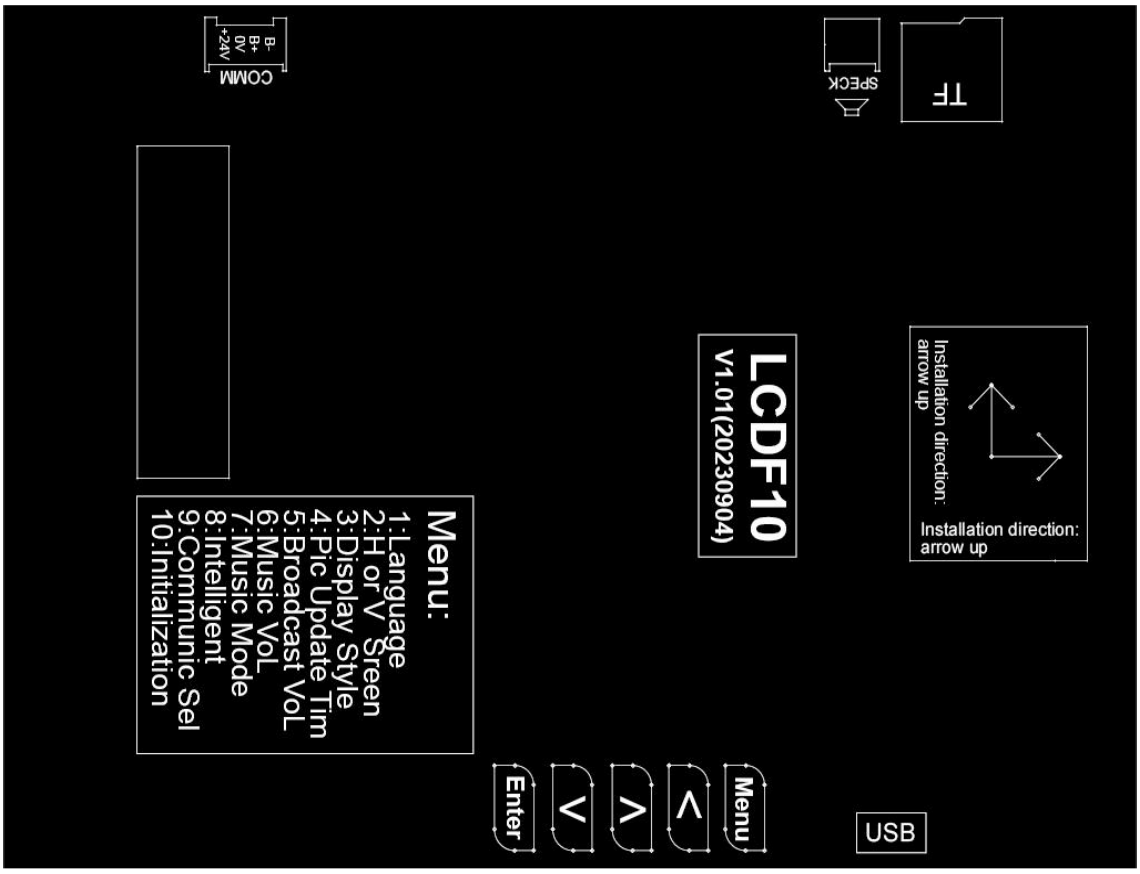
CN1	CN2	CN3	CN4	MENU	UP	DN	ENTER
485HVG communication interface	CAN/RS485(unused)	USB Photo Updates	Audio Voice announcement (optional)	Menu key	Upper key	Lower button	Acknowledgement button

8.10 Picture machine LCDF10

8.10.1 LCDF10 Terminal names and dimensions are as follows



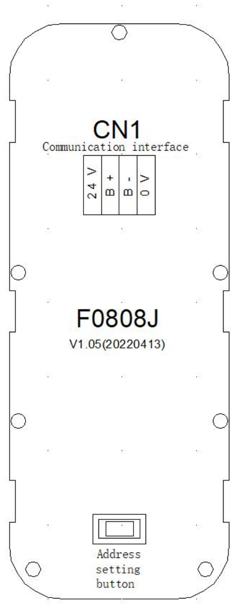
8.10.2 LCDF10 keys and ports:

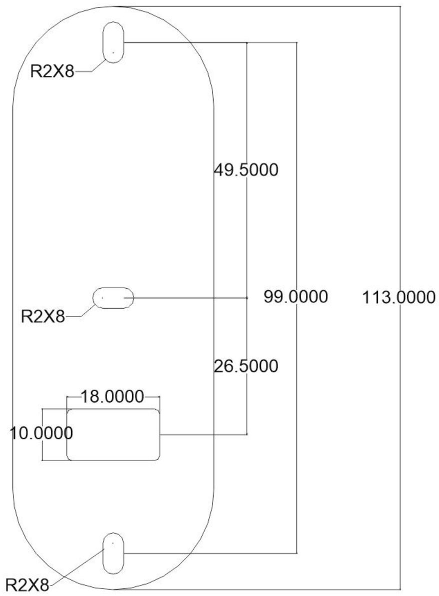


CN1	CN2	CN3	CN4	MENU	UP	DN	ENTER
485HVG communication interface	CAN/RS485(unused)	USB Photo Updates	Audio Voice announcement (optional)	Menu key	Upper key	Lower button	Acknowledgement button

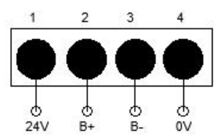
8.11 LCD floor display board F0808J

8.11.1 F0808J terminal names and dimensions are as follows



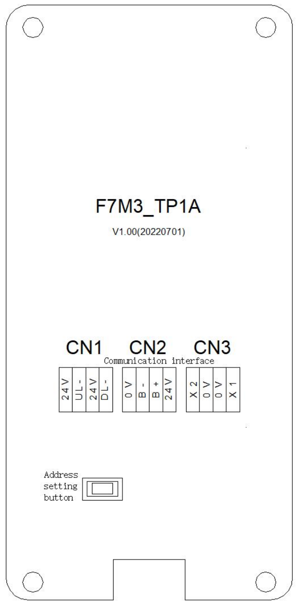


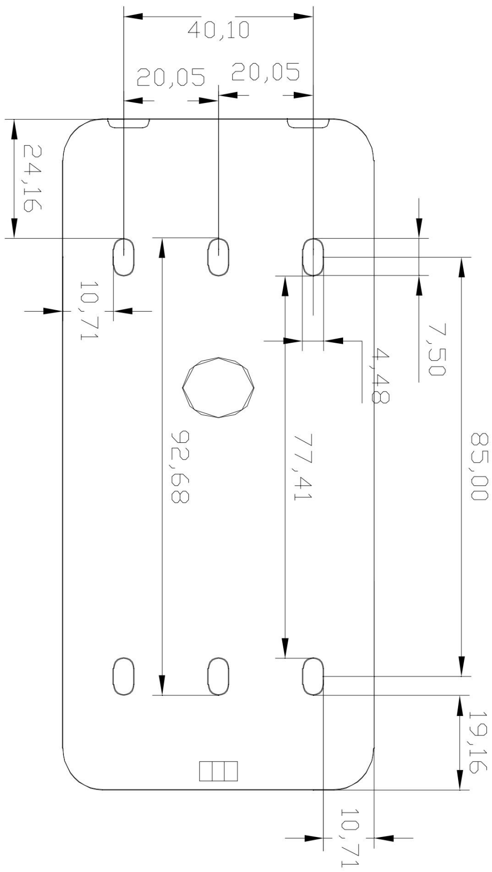
8.11.2 Floor Display board port description

Terminal Name	Functional definition	Terminal Wiring Instructions
CN1	Serial communication and power line terminal, 4PIN connector, pins 1 and 4 are power line pins, pins 2 and 3 are HVT485 communication line pins.	

8.12 LCD floor display board F7M3-TP1A

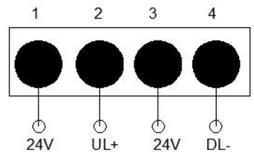
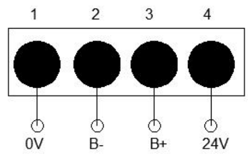
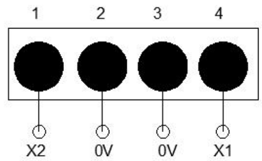
8.12.1 F7M3-TP1A Terminal names and dimensions are shown below.





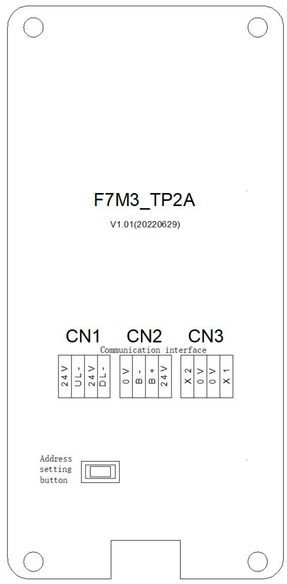
8.12.2 F7M3-TP1A Floor Display Board Port Description

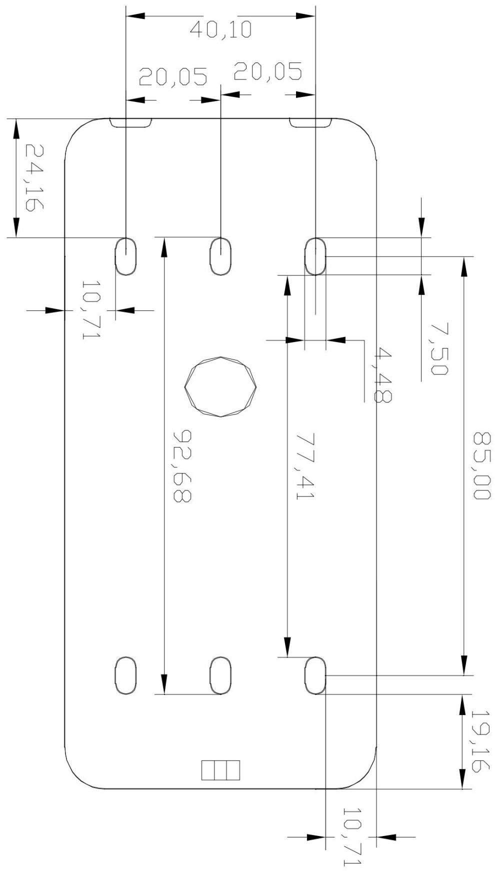
Faulty floor

Terminal Name	Functional definition	Terminal Wiring Instructions
CN1	Reservation	
CN2	Serial communication and power line terminal, 4PIN connector, pins 1 and 4 are power line pins, pins 2 and 3 are HVT485 communication line pins.	
CN3	Reservation	

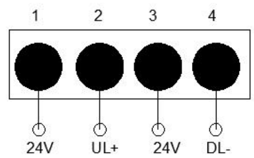
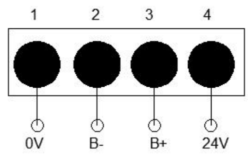
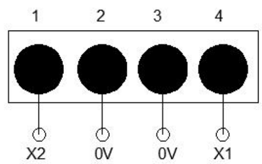
8.13 LCD floor display board F7M3-TP2A

8.13.1 F7M3-TP2A terminal names and dimensions are as follows



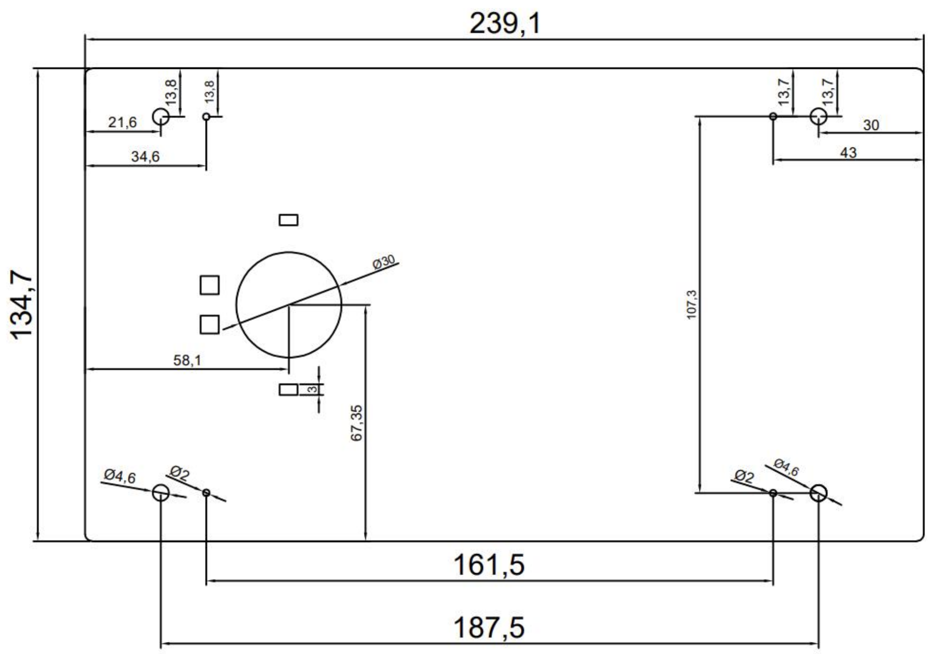


8.13.2 F7M3-TP2A Floor Display Board Port Description

Terminal Name	Functional definition	Terminal Wiring Instructions
CN1	Reservation	
CN2	Serial communication and power line terminal, 4PIN connector, pins 1 and 4 are power line pins, pins 2 and 3 are HVT485 communication line pins	
CN3	Reservation	

8.14 10 Touch panel LCD-T10B

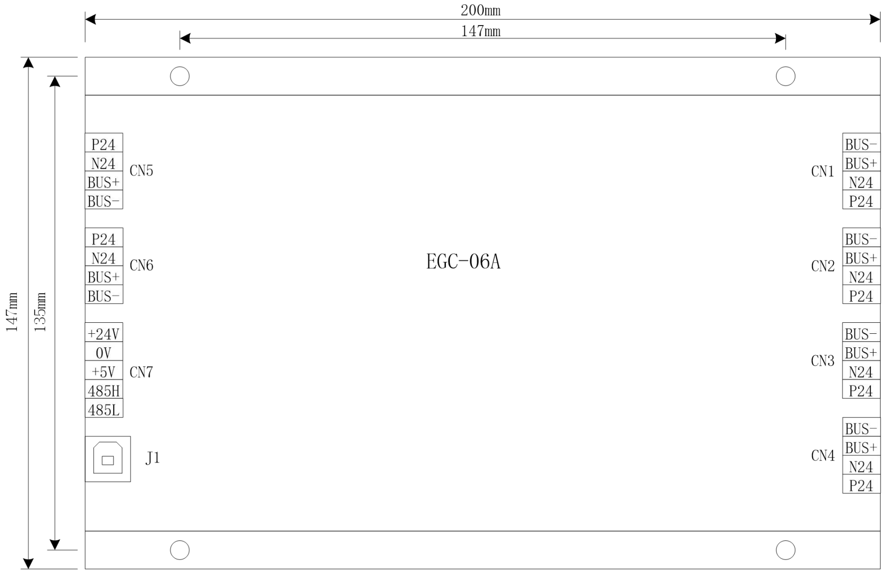
8.14.1 LCD-T10B terminal names and dimensions are as follows

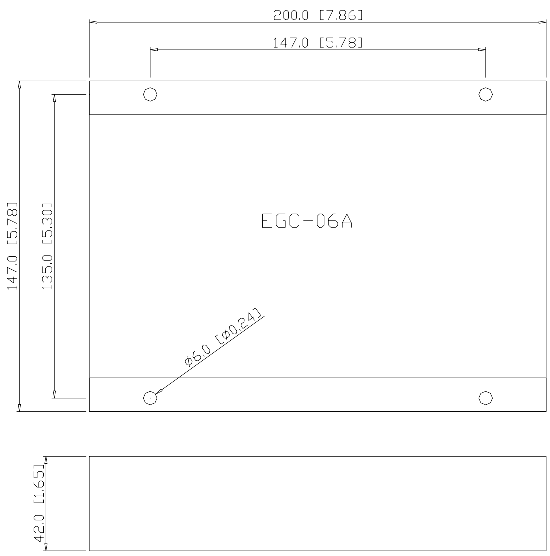


Dimension：Length 255mm；Width 150mm;　Depth16mm

8.15 Group controller EGC06

8.15.1 EGC06 Group controller terminal and size



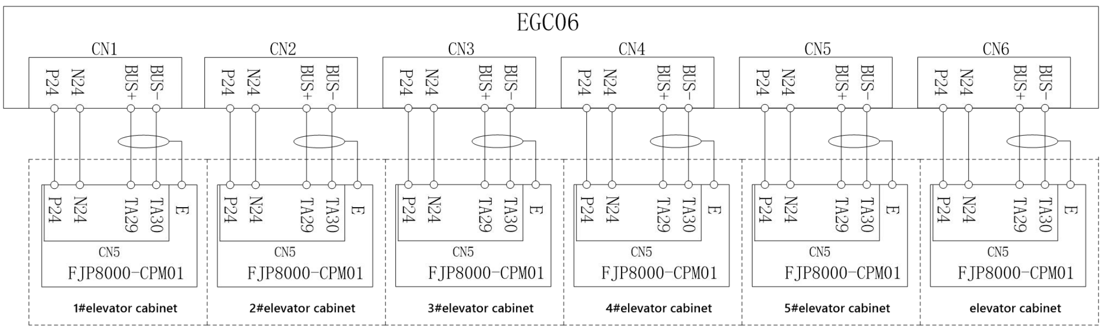


UNIT:mm[inch]

8.15.2 EGC06 controller terminal instruction

<table>
<tr><td colspan="2">Terminal identification</td><td>Terminal name</td><td>Function instruction</td><td>Terminal distribution and instruction</td></tr>
<tr><td rowspan="4">C N 1
～
C N 6</td><td>P24V</td><td rowspan="2">Connect with 1 ~ 8 elevatorDC24V power supply</td><td rowspan="2">Connect with power 24V and supply for the controller</td><td rowspan="4">BUS-
BUS+
N24
P24</td></tr>
<tr><td>N24</td></tr>
<tr><td>BUS+</td><td rowspan="2">Connect with main control board CAN communication interface</td><td rowspan="2">Connect with main control of LDC1000A integrated controller and CAN communication operates</td></tr>
<tr><td>BUS-</td></tr>
<tr><td rowspan="5">CN7</td><td>+24V</td><td rowspan="2">Connect with DC24V power</td><td rowspan="5">Used in community monitoring</td><td rowspan="5">+24V
0V
+5V
485H
485L</td></tr>
<tr><td>0V</td></tr>
<tr><td>+5V</td><td>Connect with DC25V power</td></tr>
<tr><td>485H</td><td rowspan="2">Communication interface with H485 monitoring computer of the community</td></tr>
<tr><td>485L</td></tr>
</table>

8.15.3 Instruction of the wiring diagram between CN1 ~ CN6 of EGC06 and the elevator control cabinet



8.15.4 EGC06 Handheld Operator Configuration description

1、Initial interface:

Group state

1：Disconnect 2：Disconnect
3：Disconnect 4：Disconnect

∨

Group state

5：Disconnect 6：Disconnect
7：Disconnect 8：Disconnect

Parameter setting flow chart：

Group state

1：Disconnect 2：Disconnect
3：Disconnect 4：Disconnect

MENU

→ 1# Elevator setup
2# Elevator setup
3# Elevator setup
4 # Elevator setup

∧2times

→ Total floors
Save Settings

ENTER

Modify parameter
10

∧、∨、>

Modify parameter
32

MENU

→ Total floors
→ Save Settings
Communication rate

∧ 4times

→1# Elevator setup
2# Elevator setup
3# Elevator setup
4 # Elevator setup

ENTER

→ 1F ： ↑—1 ↓—0
2F ： ↑—1 ↓—1
3F ： ↑—1 ↓—1
4F ： ↑—1 ↓—1

∨

This menu modifies whether the 1# elevator responds to hall calls from the corresponding floor, with 1 indicating yes and 0 indicating no response

→ 2F ： ↑—1 ↓—1
3F ： ↑—1 ↓—1
4F ： ↑—1 ↓—1
5F ： ↑—1 ↓—1

ENTER

→ 2F ： ↑—1 ↓—1
▲
Modify parameter

∨

```
→ 2F ： ↑—0 ↓—1
Modify parameter
```

\>

```
→ 2F ： ↑—0 ↓—1
Modify parameter
```

∨

```
→ 2F ： ↑—0 ↓—0
Modify parameter
```

MENU

```
→ 2F ： ↑—0 ↓—0
  3F ： ↑—1 ↓—1
  4F ： ↑—1 ↓—1
  5F ： ↑—1 ↓—1
```

MENU

After modification, the 1# elevator does not respond to 2F hall calls

```
→1# Elevator setup
2# Elevator setup
3# Elevator setup
4 # Elevator setup
```

∨ **4times**

```
Total floors
→ Save Settings
Communication rate
```

ENTER

Follow the previous method to set other elevators to be modified

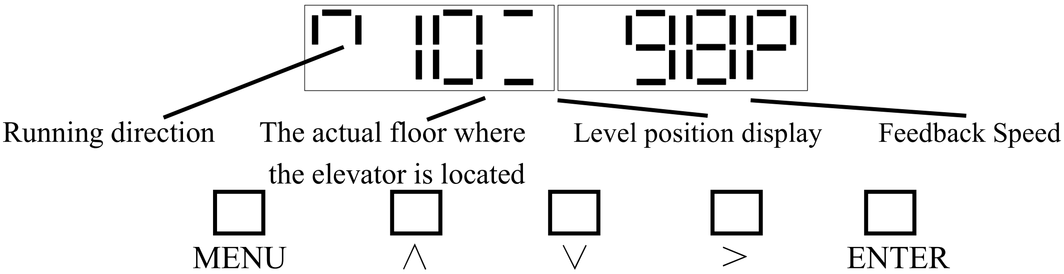
```
Save successfully
```

All parameters have been modified and saved.

Chapter 9 Motherboard LED debugging instructions

LDC1000B motherboard LED provides another human-machine interface for debugging and maintenance personnel in addition to the LCD operator. Debugging and maintenance personnel can observe and set the elevator system through it.

9.1 Initial menu and key description



The functions of each key are described as follows;

K1:“MENU” — Enter the first-level menu, return to the upper-level menu, and cancel the key

K2:“∧” — Scroll up key, press once when setting parameters

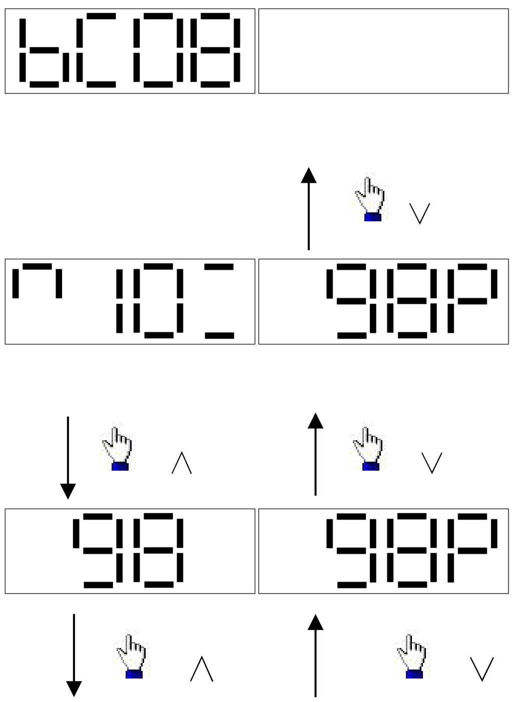
K3:“∨” — Scroll down key, press once when setting parameters

K4:“＞” — Shift key, press ten to enter the calling landing menu

K5:“ENTER”— Go to the next menu,enter key after data modification and call landing menu

In the event of a fault, the "fault code" and "actual floor where the elevator is located" are displayed alternately.

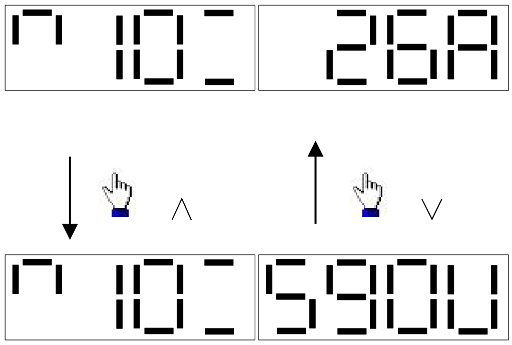
For the displayed fault codes, please refer to the manual "6.3 Control Fault Code Table".



b. In parallel、 c. Car communication、 08Number of hall door communications

The actual floor of the elevator and the feedback speed

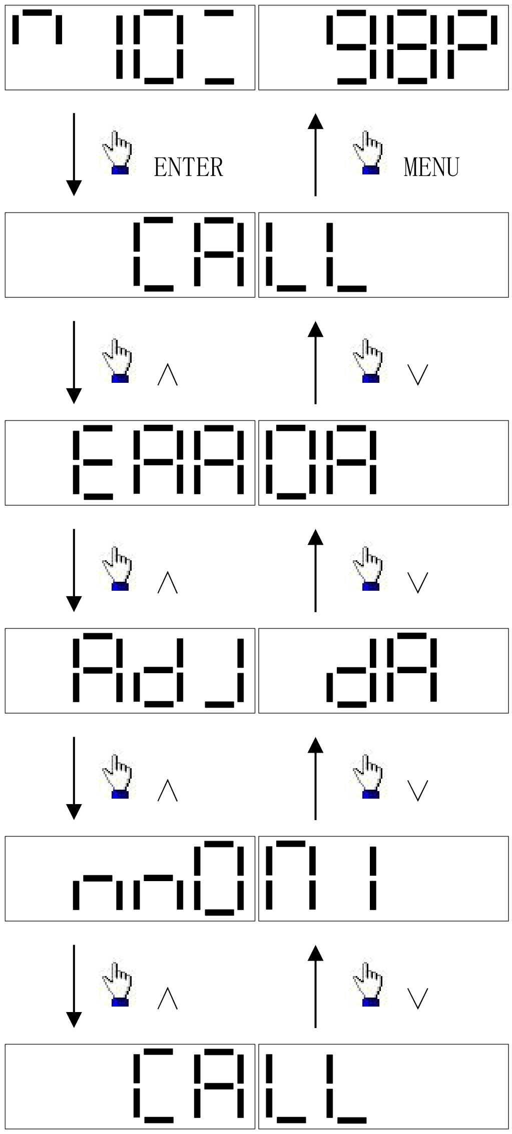
Set speed and feedback speed



The actual floor of the elevator and output current

The actual floor of the elevator and DC bus voltage

9.2 First level menu flow chart and description:



Initial menu

Calling menu

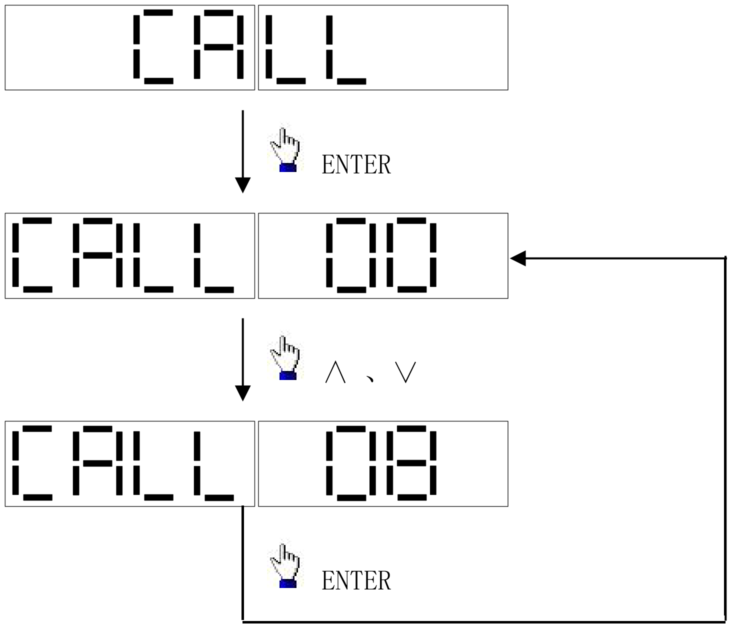
Fault checking menu

Parameter modification menu

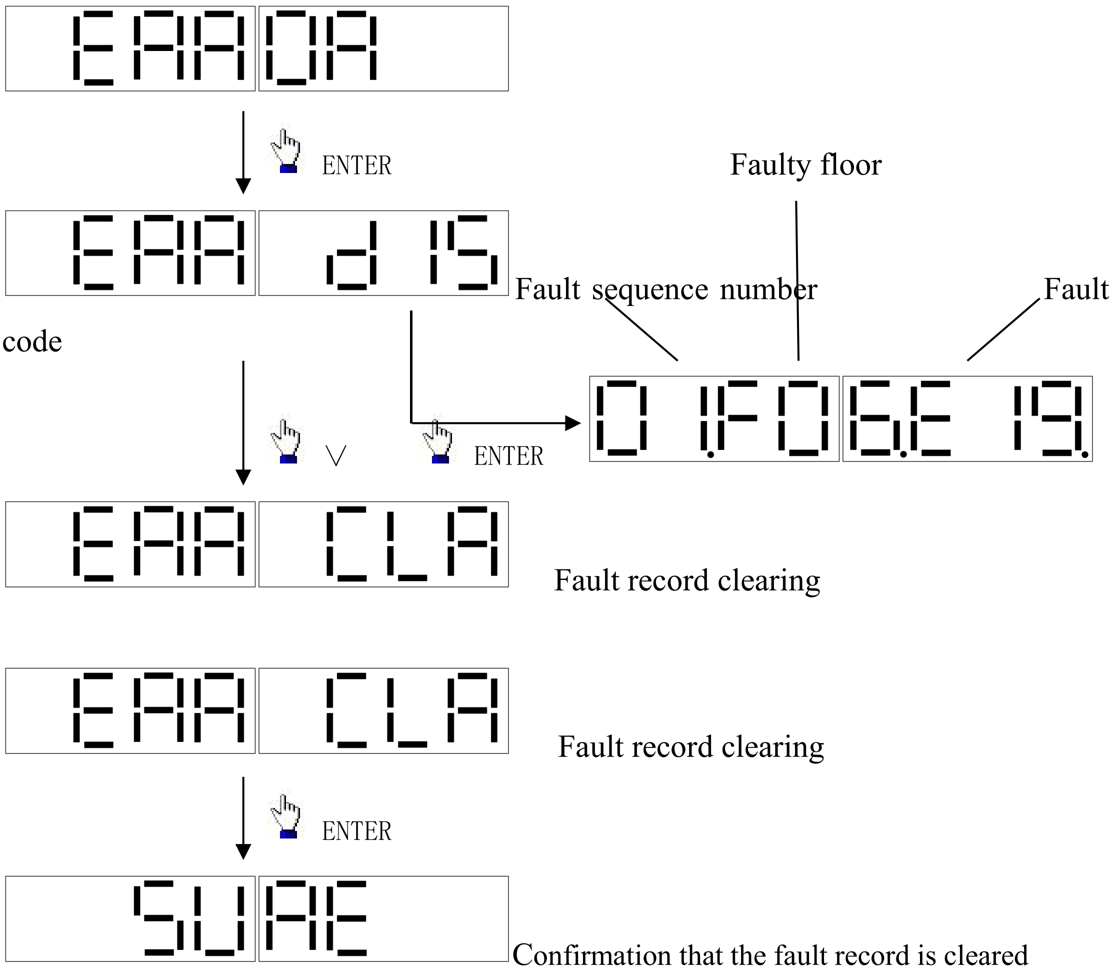
Monitor menu

Calling menu

9.3 Call landing menu instruction: （Take the calling to the 8th floor as an example）



9.4 Fault checking menu description:



ENTER

SUCC successfully

9.5 Parameter modification menu description

9.5.1 Enter password:

AdJ dA

ENTER

[A] Group A parameters

∧ 、∨

[L] Group L parameter

ENTER

L-01

(If no operation is performed, the value of this parameter is displayed one second later. The other parameters are the same)

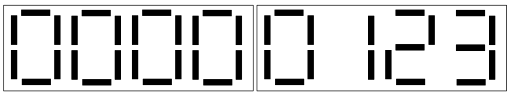
∧ 2times

L-05 Group L Parameter05

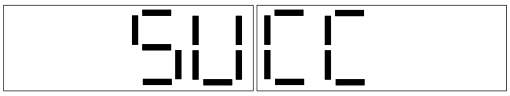
ENTER

00000000

The value is changed to the user password.
(The initial password is 00000123)



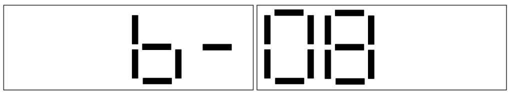
ENTER



successfully

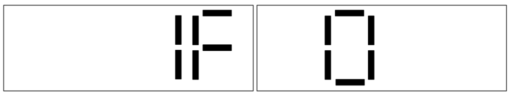
Most of the other parameters are modified the same way.

9.5.2 Group B 08, 09 Parameter modification description:



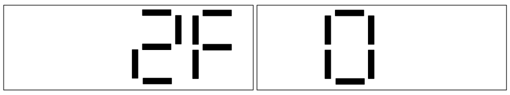
Group B Parameter08

ENTER



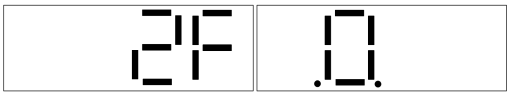
The first function option of Group B Parameter08（For details, turn to Chapter 5.3）

∧

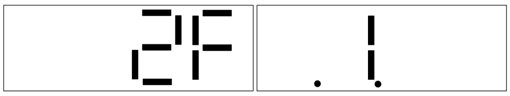


The second function option of Group B Parameter08

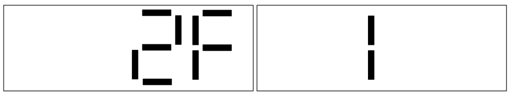
ENTER



∧、∨

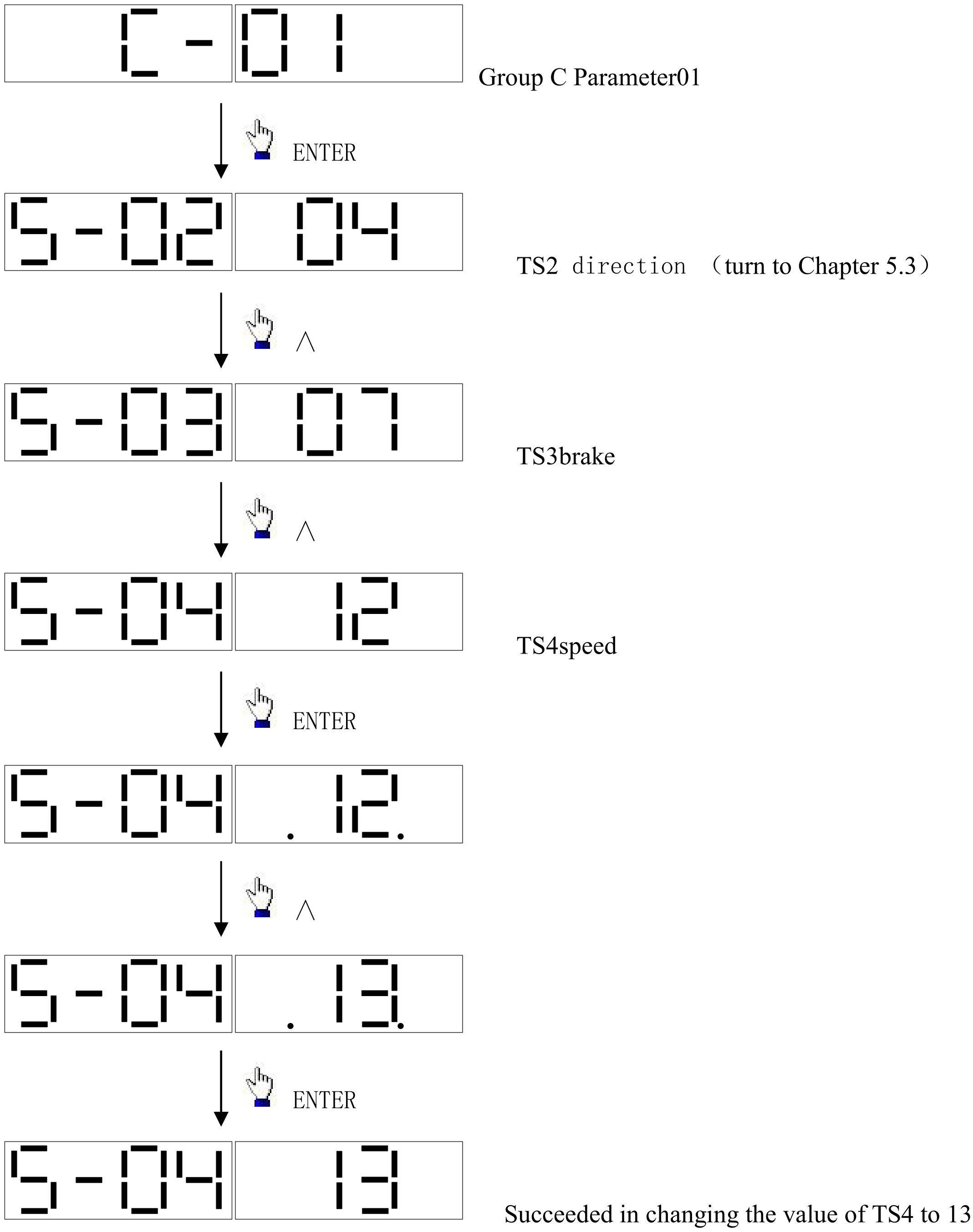


ENTER

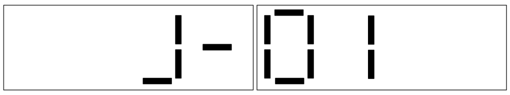


The second function option of Group B Parameter08 has adjusted successfully.

9.5.3 Group C Parameter 01 and 02 modification Description

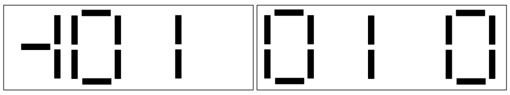


9.5.4 Group J Parameter 01, 02, 03, 04 modification description



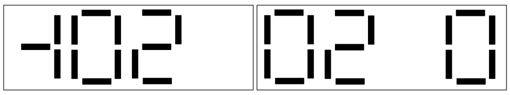
Group J Parameter01

ENTER



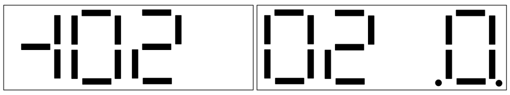
Entry pointX1

∧



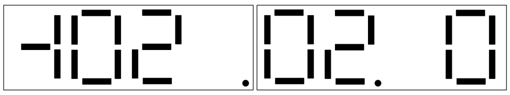
Entry pointX2

ENTER



∧、∨Modify the normally open and normally closed input point X2

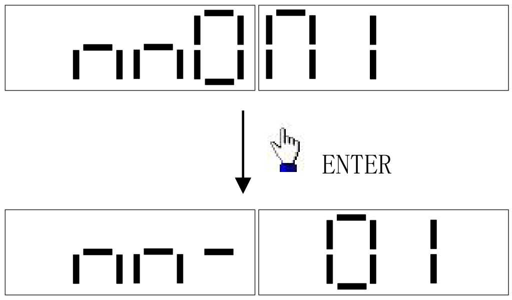
>



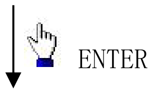
∧、∨Modify the function of the input point X2

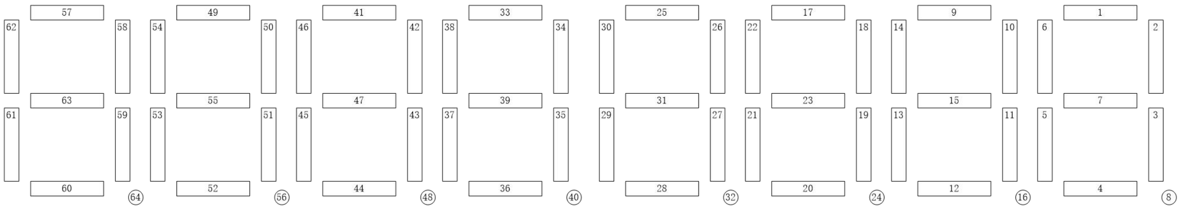
Press ENTER to save after modification

9.6 Monitor menu description



Motherboard input monitoring(turn to chapter4.2)





If the input point X1 has a signal input, the corresponding dot is lit.
And so on for the rest of the surveillance.