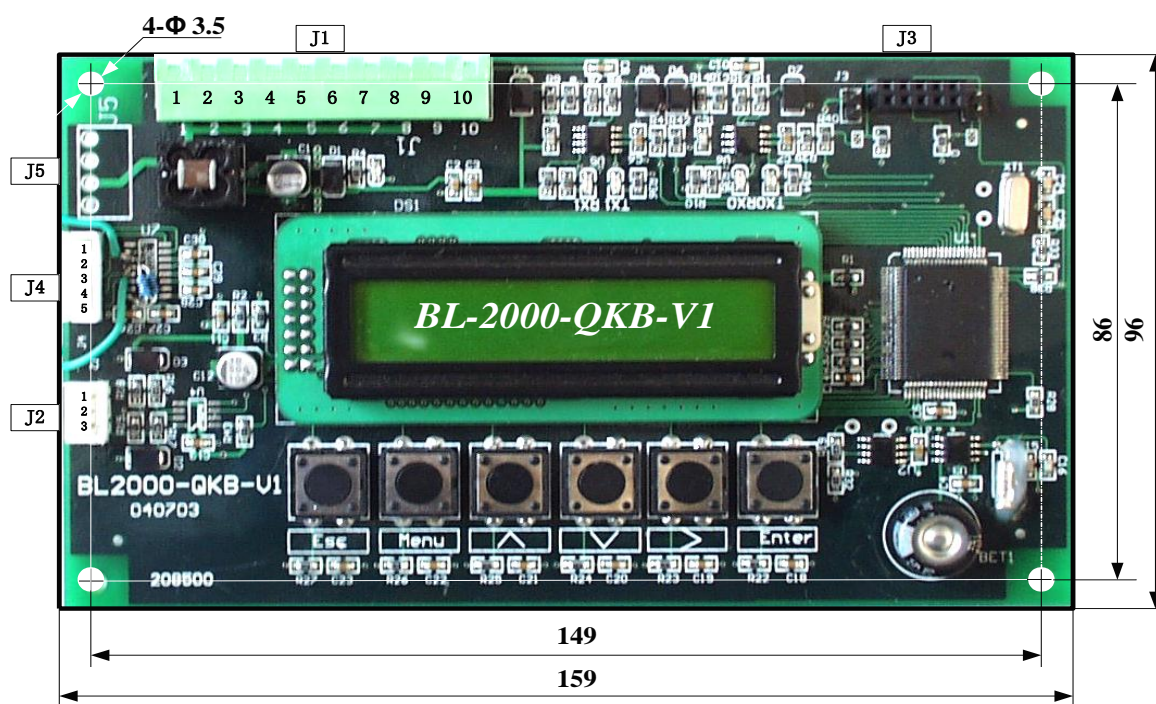


# BL2000-QKB Brief Introduction

## Introduction

Group control system is composed of group control board **BL2000-QKB-V1** and boards (**BL3000—xxx**) on each elevator. Group control board collects the landing call, car call and state information of each elevator by **CAN** bus serial communication (Diagram 3-3-6-1), processes the information intelligently, and then assign the commands to all the elevators to group control 8 elevators below 64 stories.



## Scope of application

- (1) Group control of 3-8 elevators;
- (2) Range of speed: 0.5-4m/s;
- (3) Applicable storeys: below 64 storeys;
- (4) Passenger elevator, freight elevator, bed elevator and residential elevator.

## Specification of connector

- (1) J1 multi-wire swan pin socket DK5EHDRC-10P  
Rated voltage: 300V, rated current: 15A, pressure resistance: 4KV, pitch: 5mm.
- (2) J2 connector 2.54/3P
- (3) J3 double-row hole socket 2.54/10P

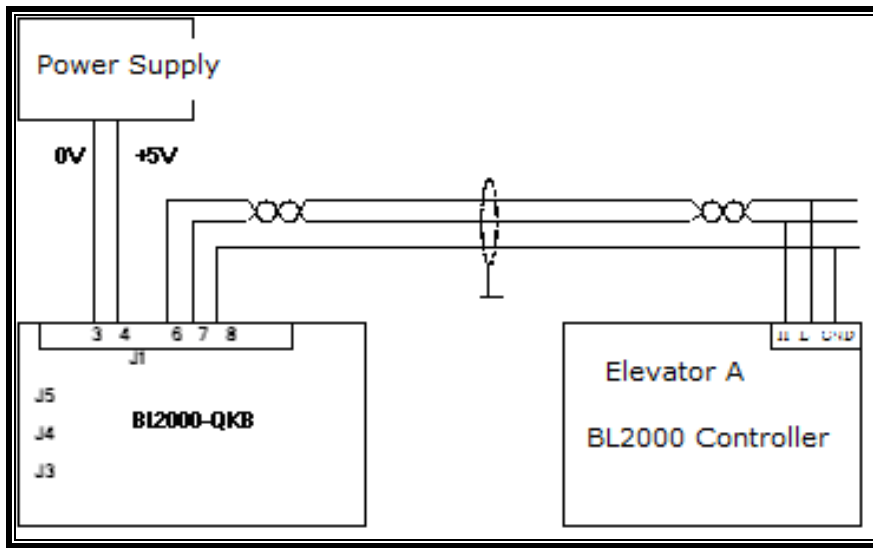
- (4) J4 connector 2.54/5P  
 (5) J5 single jacket plug 3.96/4P

## Definition and specification of port

Name	Port No.	Location	Definition	Usage	Technical Specifications		
					Port Form	Rated Load	Max. Speed
J1	GND3	J1-1	0V	Power and communication			
		J1-2					
	GND3	J1-3	0V				
	5V IN	J1-4	5V input			200mA	
		J1-5					
	TXA+	J1-6	Group communication				
	TXA-	J1-7					
	GND3	J1-8	0V				
		J1-9	Standby CAN communication TXA+				
		J1-10	Standby CAN communication TXA-				
J2	DA+	J2-1		RS485			
	DA-	J2-2					
	GND	J2-3					
J3	Programming port						
J4	TX	J4-1	Communication transmit	RS323			
	RX	J4-2	Communication receive				
	IN	J4-3	Control input				
	OUT	J4-4	Control output				
J5	TXA+	J5-1	Group control communication				
	TXA-	J5-2					
	GND3	J5-3	0V				
		J5-4					

## Connections:

Make sure the BL2000-QKB are correctly connected to the BL2000/3000/U controllers. Please see below for connection diagram:



### Control Board Setup:

On the controller side user need to set "Group Able" parameter as "1", and set the 8 elevators name "Parallel No" as "A-H" on each elevator with no repeated name. Please follow controller user guide for setup method.

### BL2000-QKB Board Setup:

#### Button Operation:

- "Enter": Confirm Input data, enter next level menu.
- "Esc": Remove input data, return previous level menu.
- "A"&"V": Adjust input data, change input value.
- ">": Move cursor position.

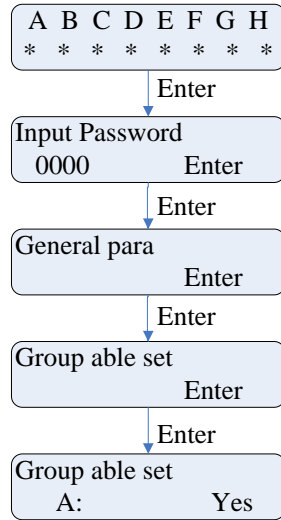
**Main Interface:** A-H indication each elevator in the group, the "\*" below indicate these elevators are not connected in the QKB.



User can also input password and set new password in the main interface, see table below for detail parameters in the main interface:

Code	Parameters	Definition
1	General Para	Press "ENT" to enter
2	Save Para	Press "ENT" to save
3	New Password	Press "ENT" to enter new pass

**Group Control Enable:** User must enable each elevator group control in the QKB board. In "Group Able Set" Menu, set elevator A to Yes.



Then in the main interface the elevator status will change to:



This indicate elevator A is connected, it is in floor 1 and going up. Connect other elevators to group control using the same way.

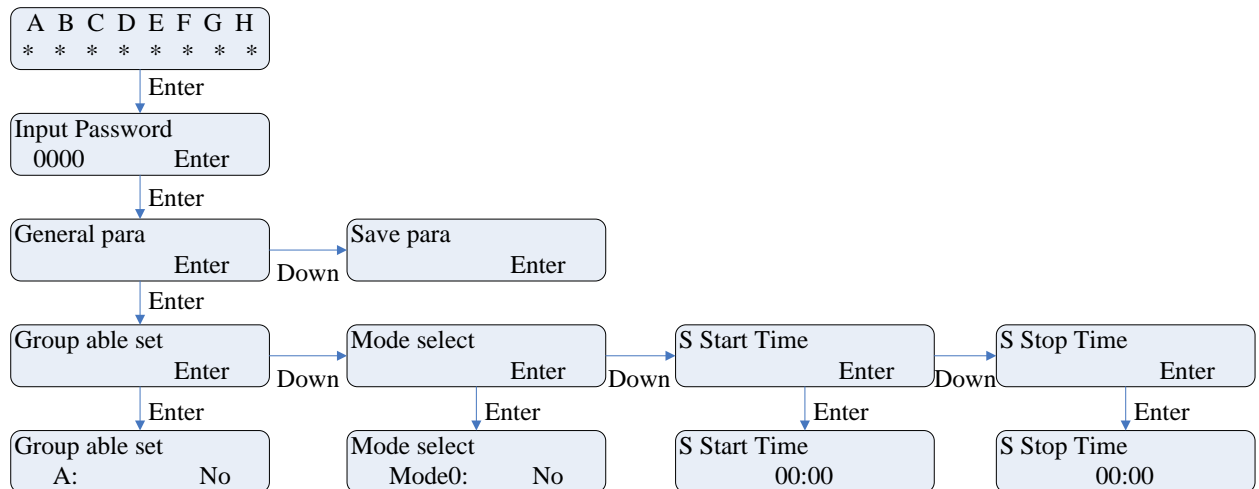
Code	Menu	Definition	Operation
1.1	Group Able Set	"ENT" to enter grou enable set	Set A-H elevator group control enable/disable
1.2	S.X.N Priority	Calculate Up/down/Car call priority in group control calculation algorithm.	Not suggest to change.
1.3	Mode Select	See section below for 4 mode	Change 4 group control mode
1.4	Set Time	Available for up/down peak mode & balance mode.	Set group control enable time
1.5	S Start Time	Up peak start time setup	Set up peak mode start time (hrs/min)
1.6	S Stop Time	Up peak end time setup	Set up peak mode end time (hrs/min)
1.7	X Start Time	Down peak start time setup	Set Down peak mode start time (hrs/min)
1.8	X Stop Time	Down peak end time setup	Set down peak mode end time (hrs/min)
1.9-1.16	A Stop Floor - H Stop Floor	A-H elevator stop floor setup	Default setting all floor can stop

1.17-1.24	A: Homing Floor - H: Homing Floor	A-H elevator homing floor setup	Elevator stop at homing floor when free.
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**Set Up Group control mode:** There are four group control mode available to use in BL2000-QKB group control board, they are :

- ◆ Mode 1: Up peak——all the elevator supply landing call service with the preference of landing floor up call in the set time.
- ◆ Mode 2: Down peak mode——one elevator preferentially supplies up call service and other elevators preferentially supply down call service with zone allocation to respond to the down call as quickly as possible.
- ◆ Mode 0: Balance mode——fine preference and assign for landing call; respond the landing call at the minimum time.
- ◆ Free mode——if there is no selective landing call in balance mode for 3 minutes, the elevator will wait on the first floor of each zone equally so as to response to any landing call as quickly as possible.

User can set different mode in "General Para" ---> "Mode Select", set the wanted mode as "YES" and then set the mode start/stop time, see below for detail:



**Other information:**

- ◆ Please remember to save parameter after setup. This can be done in "Save Para" menu.
- ◆ Also, please note that if one elevator is in states of malfunction, inspection, station, fire control and special purpose, it will be out of the group control.
- ◆ For the running function and setup of each elevator in group control, please refer to the relative chapters in the manual or “adjustment and maintenance specification of SJT-WVF 5 elevator control system”.