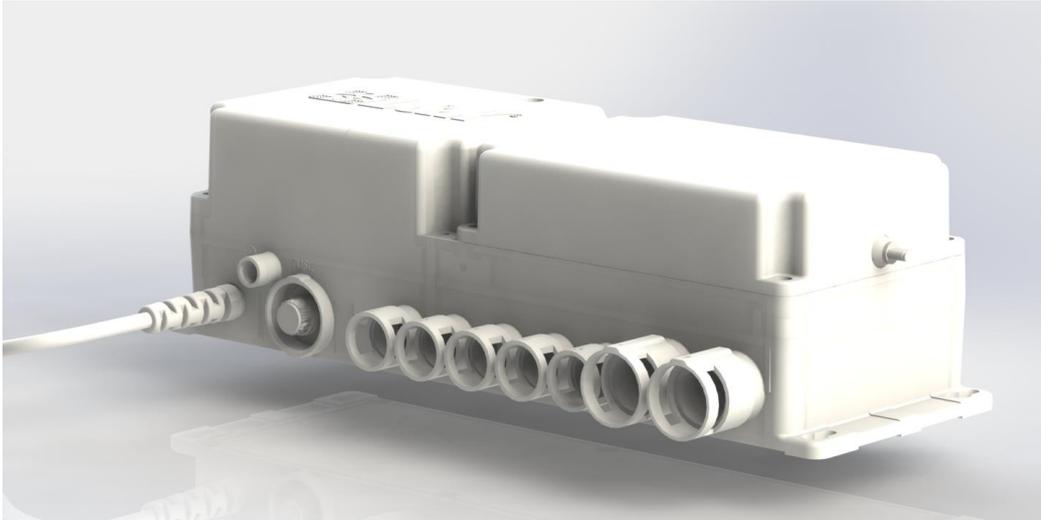# L&K

4-11 CB20

CB20 is the control box for multiple function hospital beds, it is used in ICU hospital beds with various functions, also can connect with 1 LED light (with Jack plug) to have under bed light or reading light function.
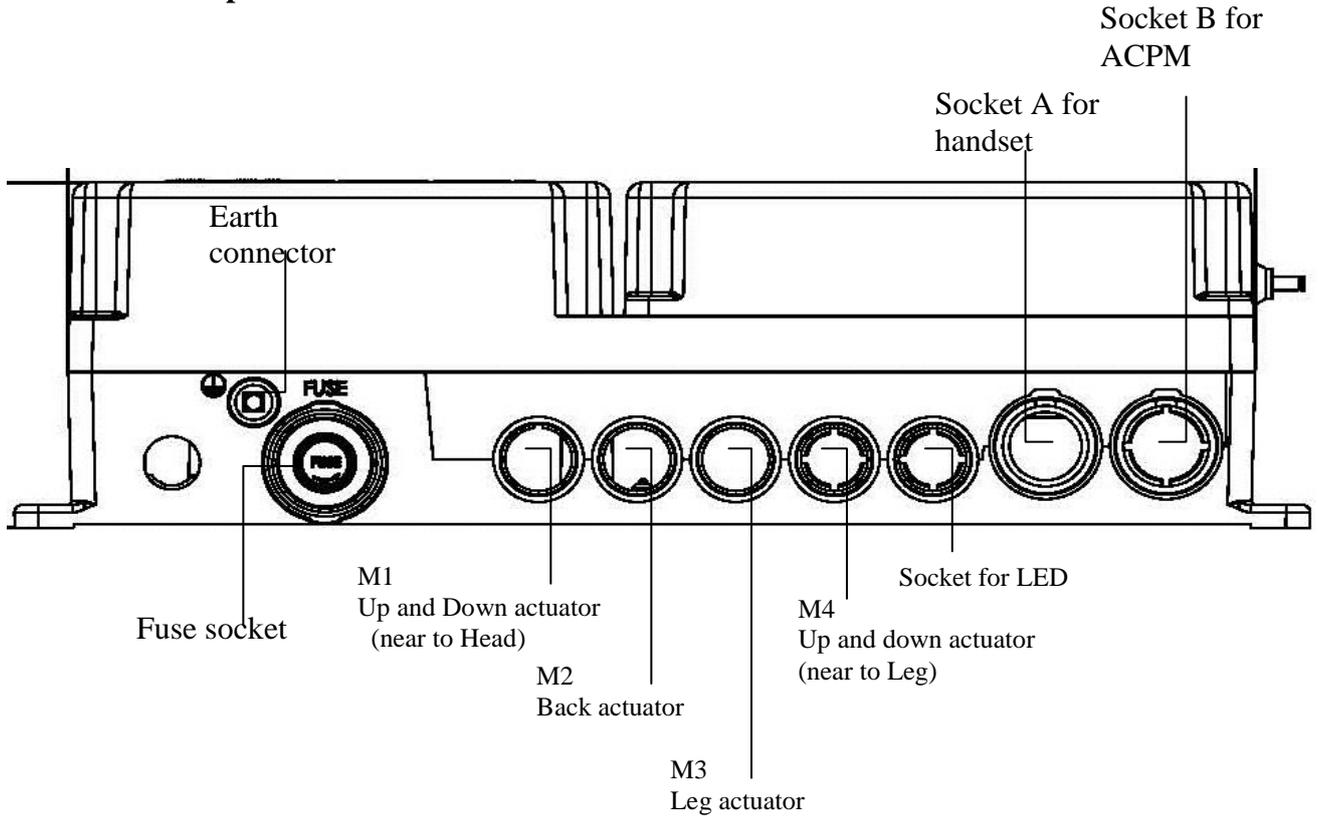
Features：

- Max. for 4 actuators. Actuator types: LA29, LA31, LA32, LA33 , LA34 , LA35, LA38, LA39 (with Jack Plug)
- Mains voltage: 220-240/ 100-120V AC; 50-60Hz
- Match with ACPM
- Dual output voltage (Low load: Low voltage; High load: High voltage)
- 100W compact high power toroidal transformer ensures low power consumption and low electromagnetic emission
- DIN socket for handset HB5X A and ACPM3 or ACPM4
- Fixed power cable
- Duty cycle: Max. 10% or 6 min. continuous use followed by 1 hour not in use
- Ambient temperature: +5℃ to +40℃
- Protection class: IP54
- Color: Gray-White   (Black Min. Order 500pcs)
- Built-in Battery case
- Stop working when battery in low Voltage
- Additional wire clasp make the actuator combine with control box more securely
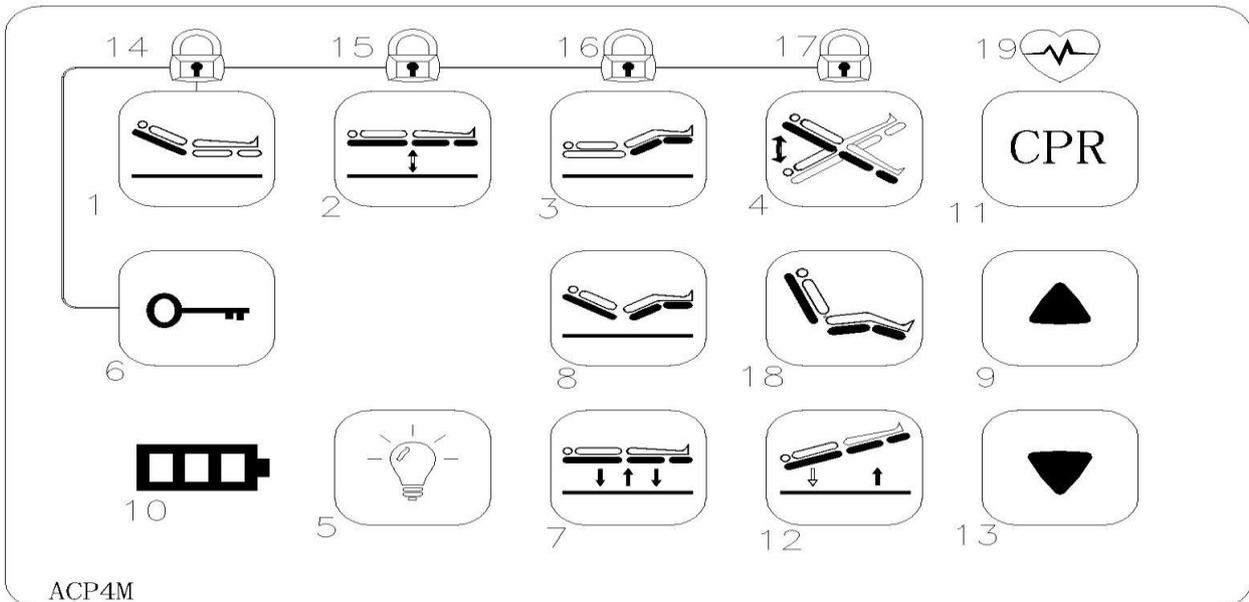- Exchangeable fuse holder

Options：

- Battery back-up: battery sets (BA16)
- Class 1: earth connection
- Protection class: IP66
- LED Light as reading light(BL) or under bed light(UBL)

Function Description:

Socket B for ACPM

Socket A for handset

Earth connector

FUSE

M1
Up and Down actuator
(near to Head)

Fuse socket

M2
Back actuator

M3
Leg actuator

M4
Up and down actuator
(near to Leg)

Socket for LED

Functions of ACPM：

14   15   16   17   19

CPR

6

8   18   9

10   5   7   12   13

ACP4M

NO.	Button	Function
1	Back	Press the button 1 and 9 simultaneously, M2 extends (press them in no particular order)
		Press the button 1 and 13 simultaneously, M2 retracts(press them in no particular order)
2	Up and Down	Press the button 2 and 9 simultaneously, M1 and M4 extend simultaneously (press them in no particular order)
		Press the button 2 and 13 simultaneously, M1 and M4 retract simultaneously (press them in no particular order)
3	Leg	Press the button 3 and 9 simultaneously, M3 extends (press them in no particular order)
		Press the button 3 and 13 simultaneously, M3 retracts (press them in no particular order)
4	Trendelenburg	Press the button 4 and 9 simultaneously, M1 extends and M4 retracts (push them in no particular order)
		Press the button 4 and 13 simultaneously, M1 retracts and M4 extends (push them in no particular order)
5	Light	Press the button, the bed light or under bed light will be turned on. Press it again to turn off.
6	Lock	When press this button with any of 1, 2, 3 and 4 buttons, the function of will be locked, press them again, it will be unlocked: 1 When press button 6 and 1 simultaneously, Back function is locked and LED light 14 is on (Red). Press them again, it will be unlocked and LED light is off 2 When press button 6 and 2 simultaneously, Up and Down function is locked and LED light 15 is on (Red). Press them again, it will be unlocked and LED light is off. 3 When press button 6 and 3 simultaneously, Leg function is locked and LED light 16 is on (Red). Press them again, it will be unlocked and LED light is off. 4 When press button 6 and 4 simultaneously, Trendelenburg function is locked and LED light 16 is on (Red). Press them again, it will be unlocked and LED light is off. Notice: When any of buttons 1, 2, 3 and 4 is locked, the button 7, 8 and 12 on ACPM and button 9,10 on HB56A has the same function will be locked as well.
7	Function	Press this button, the actuators M2&M3 retract to the lowest position simultaneously; the actuators M1&M4 extend simultaneously. (Only moving while press the button)
8	Function	Press this button, the actuators M2&M3 extend simultaneously (Only moving while pressing the button)
9	Extend	This button is used with the buttons of 1, 2, 3 and 4. (Press them in no particular order)
10	Battery Indicator	Three LED lights indicate the current voltage of the battery, press any button the lights will be on. If the voltage is more than 22V, then it is full and all LED lights are on; If the voltage is between 20V and 22V, then two LED lights are on; If the voltage is between 18V and 20V, then only one LED light is on; If the voltage is lower than 18V, then all lights are off and the system will not work.
11	CPR	Press this button, LED light 19 will be on and all actuators retract to the lowest position (It will turn to High work voltage automatically in order to make it work faster, 30 seconds later LED light will be off and all actuators retract to the end and stop moving)
12	Function	Press this button, the actuators M1&M2&M3retract to the lowest position，M4 extends to the highest position.(Only moving while press the button)
13	Retract	This button is used with the buttons of 1, 2,3 and 4.(Press them in no particular order)
14	Back locked LED	When Back actuator M2 is locked, this LED will be on (Red).
15	Up and Down locked LED	When Up and Down actuators M1&M4 are locked, this LED will be on (Red)
16	Led locked LED	When Leg actuator M3 is locked, this LED will be on (Red)
17	Trendelenburg locked LED	When Trendelenburg actuators M1&M4 are locked, this LED will be on (Red)
18	Chair Position	Press this button, M2&M3 will extend to the highest position, then M1 will extends to the highest position and M4 retracts to the lowest position. (Only moving while press the button)
19	CPR LED	When CPR button is pressed, the LED will be on.

Functions of HB56A：

No.	Button	Function
1	Back	Push this button, the actuator M2 extends(if the Lock button on ACPM locks, then it won't move)
2		Push this button, the actuator M2 backward,(if the Lock button on ACPM locks, then it won't move)
3	Up and Down	Push this button, the actuators M1 and M4 backward simultaneously (if the Lock button on ACPM locks, then it won't move)
4		Push this button, the actuators M1 and M4 extend simultaneously (if the Lock button on ACPM locks, then it won't move)
5	Leg	Push this button, the actuator M3 extends(if the Lock button on ACPM locks, then it won't move)
6		Push this button, the actuator M3 backward,(if the Lock button on ACPM locks, then it won't move)
7	Trendelenburg	Push this button, the actuators M1 extends while M4 backward (if the Lock button on ACPM locks, then it won't move)
8		Push this button, the actuators M1 backward while M4 extends (if the Lock button on ACPM locks, then it won't move)
9	Function	Push this button, the actuators M2&M3 backward to the lowest position simultaneously; the actuators M1&M4 extend simultaneously. (Only moving while pushing the button)
10	Function	Push this button, the actuators M2&M3 extend simultaneously. If it's chair position, then the actuators M2 extend while M3 backward (Only moving while pushing the button)
11	Power Indicator	LED light turns on when the control box is power-on.
12	Battery Indicator	Three LED lights indicate the current voltage of the battery, push any button the lights will turn on: If the voltage is more than 22V, then it's full and all LED lights are on; If the voltage is between 18V and 22V, then two LED lights are on; If the voltage is between 16V and 18V, then only one LED lights is on, need to charge it; If the voltage is lower than 16V, then all lights are off and the system won't work.
13	Light	Press the button, the bed light or under bed light will be turned on. Press it again to turn off.

CB20 Ordering Example (can be used with HB5A and ACPM series handsets)
CB20. 4 E － 2UL ＋ 22 A

└──**BATTERY**

A：BATTERY CHARGER

N：WITHOUT BATTERY CHARGER

──**MAIN VOLTAGE (**Input mains voltage**)**

10＝100V ★

12＝120V

22＝220V

──**COLOR** -: BLACK (Min. Order 500pcs)

+: GRAY-WHITE

──**POWER CABLES**

2EU：2P, STRAIGHT, EU CABLE

2UK：2P，STRAIGHT,UK CABLE ★

2JP：2P, STRAIGHT, JP CABLE ★

2UL：2P, STRAIGHT, UL CABLE

2AUS：2P, STRAIGHT, AUS CABLE★

3EU：3P, STRAIGHT, EU CABLE★

3UL：3P, STRAIGHT, UL CABLE★

3UK：3P, STRAIGHT, UK CABLE★

3AUS：3P, STRAIGHT, AUS CABLE ★

3IN：3P, STRAIGHT, IN CABLE ★

──**EARTH CONNECTION   E**

──**NO. OF CHANNELS**
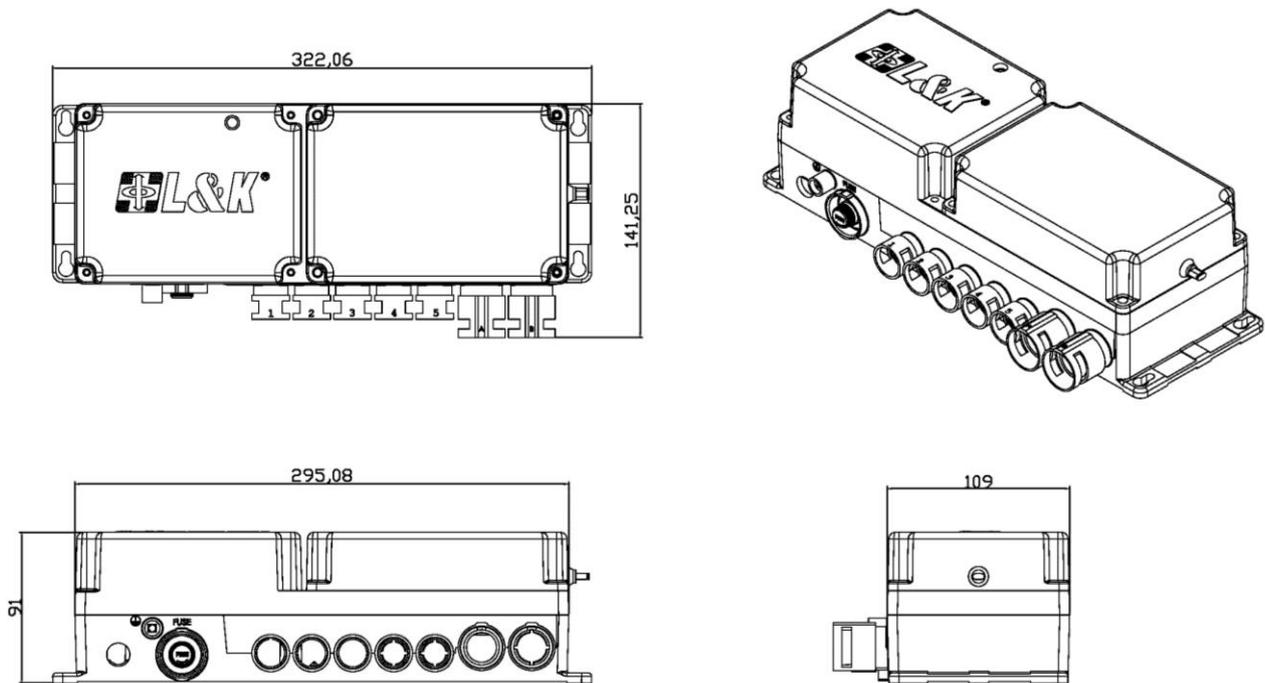
3：3 CHANNELS

4：4 CHANNELS

──**CONTROL BOX TYPE** CB20-STANDARD

(Actuator sockets on CB20 are for JACK Plug)

The 「★」 signal is for special specification.

Dimensions：

Notice：

◆ CB20 has to use with LA29, LA31, LA32, LA33, LA34, LA35, LA38 and LA39 actuators which is with Jack Plug.

◆ CB20 is only used with HB5A and ACPM series handsets.

◆ CB20 and CB17 are used the same case.

◆ The power of the light should be lower than 3W, the wide voltage range is DC24V~DC35V.