Longhorn

LHD6003-8

INSTALLATION MANUAL

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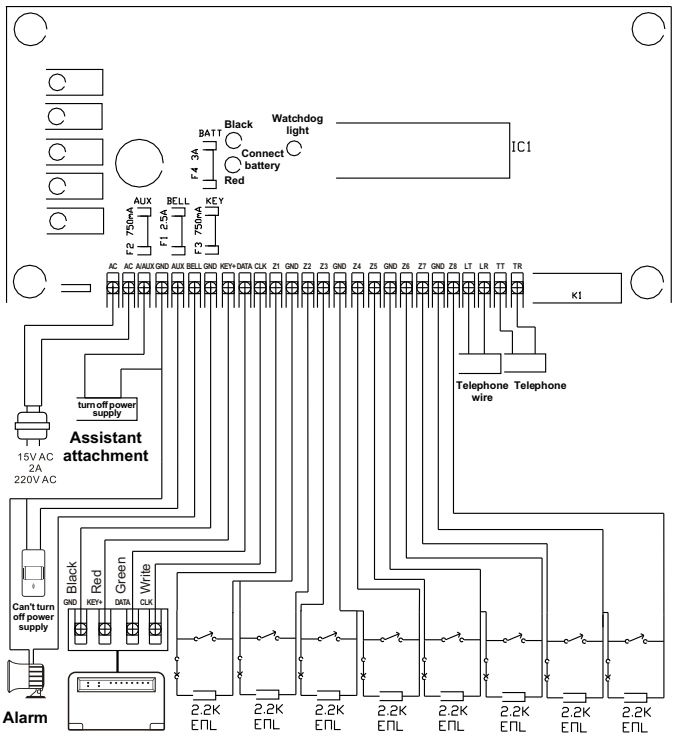


1. SYSTEM OVERVIEW AND INSTALLATION

● System Overview

Thank you for choosing LHD6003-8 security system developed by Longhorn company in Shenzhen. We will introduce main function and how to install the system and set system function in this Guide. If you want to know the system further, please refer to LHD6003-8 User Guide or alarm receiver and interrelated software operation guide.

● Cabinet of Control Installation

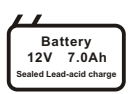
The system should be mounted in a location which allows convenient access to AC power, telephone line, and earth ground.

● Earth Ground

To ensure the effectiveness of the lightning and transient protection circuits, the control panel must be connected to "Earth Ground". Ideally, this should be common ground to the power lines, telephone system, and security system. This type of ground, called a "Unified Earth Ground", provides the best protection. The ground connection, from a grounding rod, cold water pipe or other established ground to the panel housing.

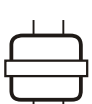
● Battery

LHD6003-8 system uses 12V/7.0Ah sealed lead-acid rechargeable battery as back-up. Red line contact anode and black line contact cathode in the system. Fuse F4 offers short circuit protection. Connect the red lead to the positive terminal of the battery and the black lead to the negative battery terminal.



● Transformer

The system uses 220VAC input,15V/2A output transformer at 50Hz which supplies power only for the master controller. If an AC power failure lasts more than 15 minutes, the keypads will display a system trouble and an AC failure report will be sent, if programmed. When AC restored for 5 minutes, the restoral report will be sent.



● Power Supply Terminal

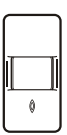
The maximum total power available at BELL, SW/AUX, AUX and KEY+ terminals is 800mA; The combined power for AUX power, all keypads and the 8th protection zone do not exceed 500mA.

● Audible Output Terminal

The BELL terminal(Audible output) provides up to 0.6A at 10.5~13.5VDC. Programming for bell time and drive voltage mode(fixed,pulse and chirp).The BELL terminal is protected by a 2.5A/3.5AG, fast-blow fuse F1.If any fuse opens, remove AC and DC power, remove the short or overload condition, then replace the fuse before restoring power. Do not substitute a higher rated fuse.

● Accessorial Power Output Terminal

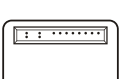
The SW/AUX terminal provides a positive 10~14VDC for auxiliary devices that require switched power for resetting. Typical devices include glass break and smoke detectors. AUX terminal provides uninterrupted power supply. The SW/AUX and AUX terminals are protected by a 750mA/3AG, fast-blow fuse F2. If any fuse opens, remove AC and DC power, remove the short or overload condition, then replace the fuse before restoring power. Do not substitute a higher rated fuse.

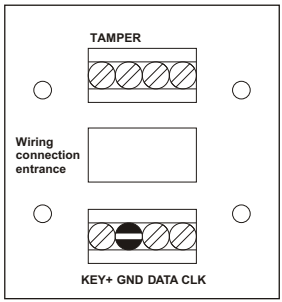


● DK802 Keypad Installation

☆ Blocks on Terminal Plate

DATA: Data line between master controller and keypad.
CLK: Clock line between master controller and keypad.
KEY+: Provide a 11~14VDC power for keypad. It is protected by a 750mA/3AG, fast-blow fuse F3. If any fuse opens, remove AC and DC power, remove the short or overload condition, then replace the fuse before restoring power. Do not substitute a higher rated fuse.
TAMPER: Provide tamper protection for keypads.

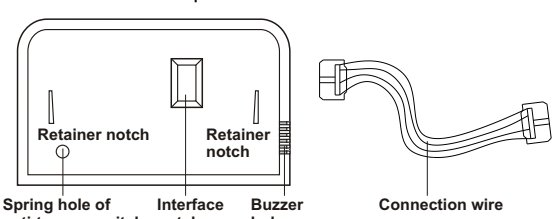




Terminal plate

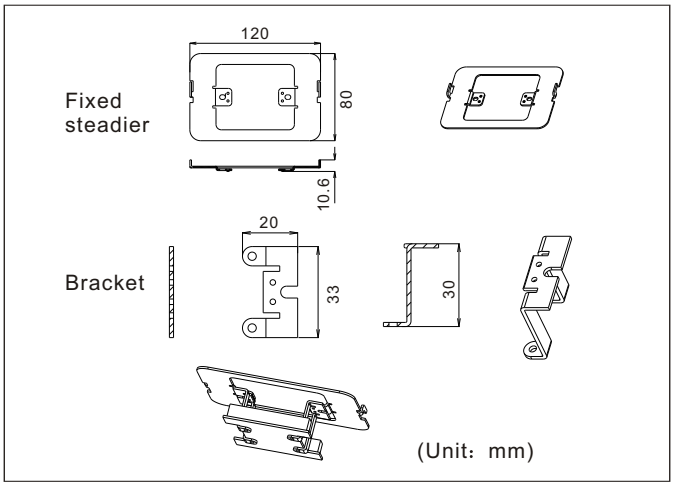
☆ Connections between patch board and controller: connect KEY+, CLK, DATA and GND in the panel of control to KEY+, CLK, DATA and GND in the keypad respectively, TAMPER on the terminal plate contact input terminal of protection zone in the controller as a circuit loop, wire length is up to 152m if you use 22AWG (0.643mm)copper core.

☆ Connection between terminal plate and keypad: use connection wire with two connectors, one connector plugs in interface on the back of keypad, and the other plugs in interface of terminal plate.



☆ The system can connect four DK802 keypads at most.

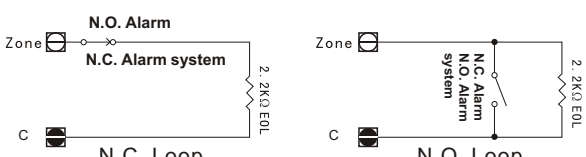
☆ Keypad mounting: press spring of anti-tamper switch in the spring hole, then hang the keypad on installed steadier and ensure the spring pressed tightly by fixed steadier .



Installation sketch

● Loop Input Terminal

☆ **Connection:**



Each loop can connect an open loop switch or a closed loop switch or a 2.2k end-of-line EOL resistor and program respectively. If the system is in armed status, any open loop or short circuit will be alarmed on the condition of EOL loop programming; open loop will trigger fault signal in despite of system in any status on the condition of monitor loop programming.

☆ **Attached list**

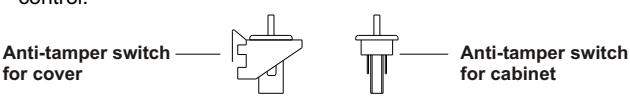
Zone1～Zone7		Zone8	
0～5.6VDC	Short circuit	0～12.5VDC	Short circuit
5.6～8.1VDC	Normal	12.5～12.8VDC	Normal
8.1～14.0VDC	Open loop	12.8～14.0VDC	Open loop

● The 8th Protection Zone

It is not only used as protection zone, but also supply 10~12.5V DC/ 25mA power for glass break and smoke detector etc .

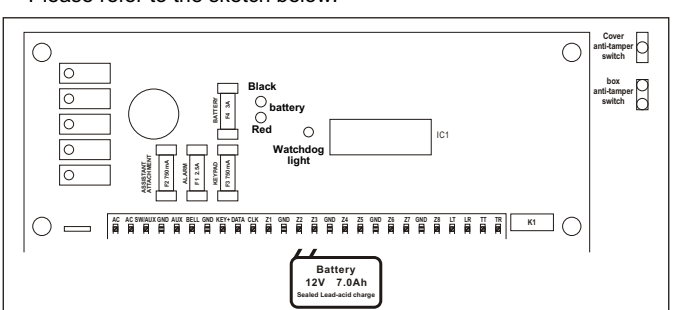
● Anti-tamper Switch Mounting

☆ LHD6003-8 system has two anti-tamper switches, one is used to protect front cover of control, the other is used to protect cabinet of control.



● mounting steps:

1. install anti-tamper switches on the top right corner inside cabinet of control. The contact of anti-tamper switch for cover should be up, and the contact of anti-tamper switch for cabinet should be down. Please refer to the sketch below:



2. Connect anti-tamper switch for cover and anti-tamper switches for box in series, then connect a protection zone.
3. Programming for protection zone according to actual requirement.

● Telephone Line and Telephone Set Installations

☆ LT, LR connect telephone line; TT, TR connect telephone set.

2. Function Default

Type	Default	Type	Default
Guest code	Disabled	**Loop 1**	Entry/exit delay, EOL circuit
Dialling type	Dual-tone	**Loop 2**	Doors and windows, EOL circuit
RPS allowed	Yes	**Loop 3**	Doors and windows, EOL circuit
Installer code	012345	**Loop 4**	Doors and windows, EOL circuit
Default installer code	Yes	**Loop 5**	Interior, EOL circuit
Operator 2# ~8# code	Disabled	**Loop 6**	Interior, EOL circuit
Operator 1# code (master)	1234	**Loop 7**	24 hour emergency or anti-tamper, EOL circuit
Test report interval	7days/ disabled	**Loop 8**	Fire or smoke-supervised EOL circuit
Bell time	5 minutes	**Entry time**	60 seconds and prewarning
Local system	Yes	**Exit time**	30 seconds and prewarning
Dynamic battery test	Off	**Report**	disabled
Soft protection zone	enable		

Note: If you want to know detailed default above, you can refer to Table of LHD6003-8 system function default in the end of guide.

3.Keypad Operation Instructions

Function	Keystroke Sequence
Entry unit programming	[Installer code] [*] [0] [#]
Exit unit programming	[*] [#]
System disarming	[password] [#]
System arming	[password] [#]
Immediate arm stay	[password] [*] [7] [4] [#] or [password] [*] [7] [4] [#]
Arm stay	[password] [*] [4] [#]
Immediate arming	[password] [*] [7] [#]
Shunt protection zone	[password] [shunt] [zone NO.] [#]
Chime on/off	[*] [5] [#]
Clear alarm memory	[*] [1] [#]
Fire	Press and hold fire alarm key 3s
burglary	Press and hold burglary alarm key 3s.
Panic	Press and hold panic key 3s.
Control unit reset	[password] [*] [6] [8] [#]
Control unit on/off	[password] [*] [6] [9] [#]
AUX power reset	[*] [6] [2] [#]
Battery test	[*] [6] [4] [#]
Bell test	[password] [*] [6] [3] [#]
Walk test	[password] [*] [6] [0] [#]
Center station test	[password] [*] [6] [1] [#]

Note: More operation instructions and detailed operation explanations can be consulted in user guide.

4. Programming Item

Programming option	Instruction address	Data bit
Installer Code	00	1~6
Operator Code(Operator 1#~8#)	01~08	2~6
Master Code(Operator 1#)	01	2~6
Guest Code(Operator 8#)	01	2~6
Operator Arming Type	01~08	1
Guest Code Using Time	09	1
Password Instruction	09	2
Operator Code Default Option	09	3
Arming Type	09	4
User 1#	0C	1~6
User 2#	10	1~6
Receiver 1# Receive Format	0A	1
Receiver 1# Message Format	0A	2
Receiver 1# Phone Number	0D~0F	1~6
Receiver 2# Receive Format	0A	3
Receiver 2# Message Format	0A	4
Receiver 2# Phone Number	11~13	1~6
Keypad RPS Enable (hold)	0B	3
RPS Enable(hold)	0B	4
RPS Phone Number (hold)	14~16	1~6
Local System Only	2F	1
Loop Receiver Select	1F~26	1
Loop Response Time	1F~26	2
Loop Restore Type	1F~26	3
Loop Arming Type	1F~26	4
Loop Audible Type	1F~26	5
Loop Circuit Type	1F~26	6

Programming option	Instruction address	Data bit
Loop Alarm Report Code	17~1E	1~2
Door Chime Enable	30~37	1
Loop Delay Before Dial Time	30~37	4
Loop Restore Report Code	17~1E	3~4
Loop Shunt Enable	30~37	2
Loop Shunt Report Code	17~1E	5~6
Loop Shunt Receiver Select	2A	1
Group Shunt Enable	30~37	3
Soft Zone Operation Enable	2F	4
4 Minutes Power-on Delay Enable	2F	3
Entry Prewarning Enable	2E	1
Exit Prewarning Enable	2E	2
Entry Delay Time	2D	3
Exit Delay Time	2D	4
Fire Audible Type	28	4
Fire Report Code	28	1~2
Fire Report Receiver Select	28	3
Burglary Audible Type	29	4
Burglary Report Code	29	1~2
Burglary Report Receiver Select	29	3
Panic Audible Type	27	4
Panic Report Code	27	1~2
Panic Report Receiver Select	27	3
Duress Report Code	2D	1
Duress Report Receiver Select	2D	2
Audible Time	2D	5
Audible Reverse Operation	2E	3
Cancel Report Code	2A	5
Cancel Receiver Select	2A	6

Programming option	Instruction address	Data bit
Restore Receiver Select	2A	2
Disarming Report Code	2C	1
Disarming Report Receiver Select	2C	2
Arming Report Code	2C	3
Arming Report Receiver Select	2C	4
Delay Before Dial	0B	1
Dial Type	0B	2
Phone Ring Type	0B	5
Dial Attempts	0B	6
Disable Loop LEDs	2E	5
Unit Status Report Code	2A	3
Unit Status Report Receiver Select	2A	4
Test Report Code	2B	1~2
Test Report Receiver Select	2B	3
Test Report Interval	2B	4
Set Test Report Countdown Timer	A0	1
Daily Battery Test Enable	2F	2

5. Function setting

✓ Programming conversions

Hexadecimal Value	Key Strokes
A	* 0
B	* 1
C	* 2
D	* 3
E	* 4
F	* 5

✓ **Note:**

Keypad beeps 2 times after you finish input and press [#],indicating the content you input is confirmed; Keypad beeps 5 times, which means the content you input isn't confirmed and you should input at the beginning.

Note: Here C L means Command Location, and D P means Digit Position. And recommendatory digit will be listed in the table below except for notes.

● Installer Code (CL 00)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**0**	0	1	2	3	4	5	#

☆ **Note:**

1. Installer code has 6 digits, default value is 012345.
2. default value of DP 1 is 0, which can not be changed.
3. DP 2~6 can be changed from 0~9.

● Operator Arming Type and Operator Code (CL 01~08)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**1**	C	1	2	3	4	E	#

☆ **Note:**

1.Command Location

CL	Type	CL	Type
01	Operator 1# (master)	05	Operator 5#
02	Operator 2#	06	Operator 6#
03	Operator 3#	07	Operator 7#
04	Operator 4#	08	Operator 8#

2.Digit Position 1

Content	Type
1	Arming, No Arming Report, No Shunt
2	Disarming, No Disarming Report, No Shunt
3	Arming and Disarming, No Arming and Disarming Reports, No Shunt
4	Arming, Arming Report, No Shunt
5	Disarming, Disarming Report, No Shunt
6	Arming and Disarming, Arming and Disarming Reports, Shunt
7	Arming, No Arming Report, Shunt
8	Disarming, No Disarming Report, Shunt
9	Arming and disarming, No Arming and Disarming Reports, Shunt
A	Arming, Arming Report, Shunt
B	Disarming, Disarming Report, Shunt
C	Arming and Disarming, Arming and Disarming Reports, Shunt

3. Digit Position 2~6

Arming code has 5 digits, default value is 01234.
Digit Position 2 can not be changed which is fixed 1 when CL is 01, 2 when CL is 02,....., the rest may be deduced by analogy.
Content of Digit Position 3~6 can be selected from 0~9.

● Arming / Password Option(CL 09)

CL		DP1	DP2	DP3	DP4	
0	**9**	0	0	1	1	#

☆ **Note:**

1. Digit Position 1 (Using Time of Guest Code)

Content	Type	Content	Type
0	Invalidation of guest code	8	8 days
1	1 day	9	9 days

Content	Type	Content	Type
2	2 days	A	10 days
3	3 days	B	11 days
4	4 days	C	12 days
5	5 days	D	13 days
6	6 days	E	14 days
7	7 days	F	15 days

2. Digit Position 2 (Password Command)

Content	Type
0	No
1	Yes, Use for shunt, group shunt, immediate arming, keypad RPS, test center and bell.

3. Digit Position 3 (Default Installer Code)

Content	Type
0	No, Installer code is not changed when power-off.
1	Yes, Installer code restores factory setting default when power-off.

4. Digit Position 4 (Trouble Arming Type)

Content	Type
1	Do not compulsively arm, arm when trouble protection zone restores normal or is bypass.
2	Can be compulsive armed, triggered zone is automatically shunted after exit delay.
3	Can be compulsive armed and bell warning, triggered zone will bell in the period of exit delay.

● Communication Format (CL 0A)

CL		DP1	DP2	DP3	DP4	
0	**A**	6	7	6	7	#

☆ **Note:**

1. Digit Position 1 (Receiver 1# Receiver Format)

Content	Type	Content	Type
1	Fast "A", 2300 Hz	4	Sumcheck, 2300Hz
2	Slow "B", 1400Hz	5	CFSK III
3	Sumcheck, 1400Hz	6	DTMF, 1400Hz

2. Digit Position 2 (Receiver 1# Message Format)

Content	Type	Content	Type
1	3/1 odd	5	CFSK III
2	3/1 extended	6	4/9 Ademco DTMF
3	4/2 (2-digit reporting code)	7	4+2 sumcheck (DTMF)
4	4/1		

3. Digit Position 3 (Receiver 2# Receiver Format)

Content	Type	Content	Type
1	Fast "A", 2300Hz	4	Sumcheck,2300Hz
2	Slow "B", 1400Hz	5	CFSK III
3	Sumcheck, 1400Hz	6	DTMF, 1400Hz

4. Digit Position 4 (Receiver 2# Message Format)

Content	Type	Content	Type
1	3/1 odd	5	CFSK III
2	3/1 extended	6	4/9 Ademco DTMF
3	4/2 (2-digit reporting code)	7	4+2 sumcheck (DTMF)
4	4/1		

5. Valid combinations of Receiver Format and Message Format are listed below.

Message Format	Receiver Format
3/1 odd or 3/1 Extended	All formats, except CFSK III and DTMF,1400Hz
4/2 (2-digit reporting) or 4/1	Fast "A", 2300Hz and Slow "B",1400Hz
CFSK III	CFSK III
Sumcheck (DTMF)	DTMF,1400Hz

● Communication Control (CL 0B)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**B**	0	3	1	1	0	8	#

☆ **Note:**

1. Digit Position 1 (Delay Before Dial)

Content	Type	Content	Type	Content	Type
0	0 s	6	60s	C	120s
1	10s	7	70s	D	130s
2	20s	8	80s	E	140s
3	30s	9	90s	F	150s
4	40s	A	100s		
5	50s	B	110s		

2. Digit Position 2 (Type)

Content	Type	Content	Type
1	DTMF ~Audio Frequency (10s)	3	Pulse (10 pulses/s)
2	DTMF (5s)		

3. Digit Position 3 (Keypad RPS Enable)

Content	Type
0	Disable
1	Enable, keypad RPS in the location (hold)

4. Digit Position 4 (RPS Enable)

Content	Type
0	Disable
1	Enable, RPS (hold)

5. Digit Position 5 (Phone Ring Type)

Content	Type
0	Single ring, uniformly timed rings with long pauses between rings.
1	Double ring, rings twice quickly followed by a long pause then rings twice again.

6. Digit Position 6 (Dial Attempts)

Content	Type	Content	Type	Content	Type
1	Once	6	6 times	B	11 times
2	Twice	7	7 times	C	12 times
3	3 times	8	8 times	D	13 times
4	4 times	9	9 times	E	14 times
5	5 times	A	10 times	F	15 times

Note:
If the communication connection of master control is in trouble, content of Digit Position 6 will influence operations below.
1. If content of Digit Position 6 is even, master control will re-dial automatically every 4 hours until communication of master control is connected successfully.
2. If content of Digit Position 6 is odd, master control will re-dial automatically only once, even if it is connected unsuccessfully.

● User 1# (CL 0C)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**C**	0	0	0	0	0	0	#

☆ **Note:**

1. Valid entries are 0 ~ F.
2. DP1~6 is user number which is right justified, ie. the last digit must be in DP 6 and fit all unused digit positions with 0's.
   For example, if user number has 3 digits, fill DP1~3 with 0's and DP4~6 with user numbers.

● Receiver 1# Phone Number (CL 0D~0F)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**D**	E	0	0	0	0	0	#
CL		**DP1**	**DP2**	**DP3**	**DP4**	**DP5**	**DP6**	
0	**E**	0	0	0	0	0	0	#

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**F**	0	0	0	0	0	0	#

☆ **Note:**

1. Receiver 1# phone number has 18 digits which stored in command location 0D, 0E and 0F and sequentially accessed from command location 0D, 0E and 0F. You must place a "E" (EON) after the last digit to be dialled. Fill in remaining positions with "0". Zeroes after EON will not be dialled.
   For example, if you want to dial "123456789", you should input "123456" in Digit Position1~6 of command location 0D,then fill digit position1~4 of command location 0E with "789E" and all unused digit positions with 0's.
2. Digit position 1~6 can be filled other numbers to achieve functions as below.

Content	Type	Content	Type
0～9	Dialling digits	C	∗(DTMF dialling only, not use in pulse dialling)
A	Dial tone	D	#(DTMF dialling only, not use in pulse dialling)
E	End of number	F	5 seconds delay

● User 2# (CL 10)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	0	0	0	0	0	0	0	#

☆ **Note:**

1. Valid entries are 0 ~ F .2.DP1~6 is user number which is right justified, ie. the last digit must be in DP 6 and fill all unused digit positions with 0's.
   For example, if user number has 3 digits, fill DP1~3 with 0's and DP4~6 with user numbers.

● Receiver 2# Phone Number (CL 11~13)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	1	E	0	0	0	0	0	#
CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	2	0	0	0	0	0	0	#

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	3	0	0	0	0	0	0	#

☆ **Note:**

1. Receiver 2# phone number has 18 digits which stored in command location 11,12 and 13 and sequentially accessed from command location 11,12 and 13. You must place a "E" (EON) after the last digit to be dialled. Fill in remaining positions with "0". Zeroes after EON will not be dialled.
   For example, if you want to dial "123456789",you should input "123456" in digit position1~6 of command location 0D, then fill digit position1~4 of command location 0E with "789E" and all unused digit positions with 0's.
2. Digit position 1~6 can be filled other numbers to achieve functions as below.

Content	Type	Content	Type
0～9	Dialling digits	C	∗(DTMF dialling only, not use in pulse dialling)
A	Dial tone	D	#(DTMF dialling only, not use in pulse dialling)
E	End of number	F	5 seconds delay

● RPS Phone Number (CL 14~16)(hold)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	4	E	0	0	0	0	0	#

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	5	0	0	0	0	0	0	#

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	6	0	0	0	0	0	0	#

☆ **Note:**

1. RPS Phone Number has 18 digits which stored in command location 14, 15 and 16, and sequentially accessed from command location 14,15 and 16. You must place a "E" (EON) after the last digit to be dialled. Fill in remaining positions with "0". Zeroes after EON will not be dialled.
   For example, if you want to dial "123456789", you should input "123456" in digit position1~6 of command location 0D, then fill digit position 1~4 of command location 0E with "789E" and all unused digit positions with 0's.
2. Digit position 1~6 can be filled other numbers to achieve functions as below.

Content	Type	Content	Type
0～9	Dialling digits	C	∗(DTMF dialling only, not use in pulse dialling)
A	Dial tone	D	#(DTMF dialling only, not use in pulse dialling)
E	End of number	F	5 seconds delay

☆ **Note:**
If you want to use RPS, digit position 3 and 4 of command location 0B must be filled "1".

● Loop Report Code (CL 17~1E)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**7**	3	1	E	1	6	1	#

☆ **Note:**
1. Command Location

CL	Type	CL	Type
17	Loop 1	1B	Loop 5
18	Loop 2	1C	Loop 6
19	Loop 3	1D	Loop 7
1A	Loop 4	1E	Loop 8

2. Digit Position 1 and 2 : Loop Alarm Report Code
3. Digit Position 3 and 4 : Loop Restore Report Code
4. Digit Position 5 and 6 : Loop Shunt Report Code

Note:
1. Digit Position 1 uses 3/1 and 4/1 formats.
2. Digit Position 1 and 2 use 3/1 extended, 4/2 and CFSK III formats.
3. Programming a "0 0" in Digit Position 1 and 2 disables loop alarm report code. Programming a "0 0" in Digit Position 3 and 4 disables loop restore report code. Programming a "0 0" in Digit Position 5 and 6 disables loop shunt report code.
4. If 3/1 or 4/1 format is used, all unused digit position should be filled "0".

● Loop control (C L 1F~26)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	F	1	2	1	3	2	3	#

☆ **Note:**

1. Command Location

CL	Type	CL	Type
1F	Loop 1	23	Loop 5
20	Loop 2	24	Loop 6
21	Loop 3	25	Loop 7
22	Loop 4	26	Loop 8

2. Digit Position 1(Alarm Receiver Select)

Content	Type	Content	Type
0	Receiver 1# with Receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual reporting)

3. Digit Position 2(Loop Response Time)

Content	Type	Content	Type
0	5 milliseconds	2	500 milliseconds
1	250 milliseconds	3	750 milliseconds

4. Digit Position 3(Loop Restore Type)

Content	Type
0	No restoral
1	Return to normal
2	Return to normal, bell silences
3	Return to normal, system disarmed

5. Digit Position 4(Loop Arming Type)

Content	Type	Content	Type
1	Interior (entry/exit delay)	6	Day/Delay, Day fault chirps
2	Instant	7	Day/Instant with bell
3	Delay	8	Day/Delay with bell
4	Long Delay (double delay)	9	24 hours (always armed)
5	Day/Delay, Day fault chirps		

6. Digit Position 5(Loop Audible Type)

Content	Type	Content	Type
1	Pulsing	4	Silent with no LED
2	Steady	5	Silent with LED
3	Chirp		

7. Digit Position 6(Loop Circuit Type)

Content	Type	Content	Type
1	N.O.	4	Supervised, bell latched
2	N.C.	5	Supervised, no bell latched
3	EOL		

Note: A loop programmed as type 4 or 5 will report any open as a Trouble condition, regardless of panel armed status.

● Soft zone A(Panic) (CL 27)

CL		DP1	DP2	DP3	DP4	
2	**7**	1	1	1	3	#

☆ **Note:**

1. Digit Position 1 and Digit Position 2 : Panic Report Code

D P 1 uses 3/1 and 4/1 formats.
DP 1 and DP 2 use 3/1 extended, 4/2 and CFSK III formats.
Program a "00" to disable Panic Reports.

2. Digit Position 3: Panic Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	1	Receiver 2# only
3	Receiver 1# only	2	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 4: Panic Audible Type

Content	Type	Content	Type
1	Pulsing	3	Chirp
2	steady	4	Silent

✓ **Notice**

Only if Digit Position 4 of Command Location 2F must be filled "1", Soft Zone can be used.

● Soft zone B (Fire) (CL 28)

CL		DP1	DP2	DP3	DP4	
2	8	1	1	1	1	#

☆ **Note:**

1. Digit Position 1 and Digit Position 2 : Fire Report Code

D P 1 uses 3/1 and 4/1 formats.
DP 1 and DP 2 use 3/1 extended, 4/2 and CFSK III formats.
Program a "00" to disable Fire Reports.

2. Digit Position 3: Fire Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	1	Receiver 2# only
3	Receiver 1# only	2	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 4: Fire Audible Type

Content	Type	Content	Type
1	Pulsing	3	Chirp
2	steady	4	Silent

✓ **Notice**

Only if Digit Position 4 of Command Location 2F must be filled "1", Soft Zone can be used.

● Soft zone C (Burglary) (CL 29)

CL		DP1	DP2	DP3	DP4	
2	**9**	1	1	1	2	#

☆ **Note:**

1. Digit Position 1 and Digit Position 2: Burglary Report Code

D P 1 uses 3/1 and 4/1 formats.
D P 1 and D P2 use 3/1 extended, 4/2 and CFSK III formats.
Program a "00" to disable Burglary Reports.

2. Digit Position 3: Burglary Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	1	Receiver 2# only
3	Receiver 1# only	2	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 4: Burglary Audible Type

Content	Type	Content	Type
1	Pulsing	3	Chirp
2	steady	4	Silent

✓ **Notice**

Only if Digit Position 4 of Command Location 2F must be filled "1", Soft Zone can be used.

● Event Report (CL 2A)

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	A	1	1	A	1	D	1	#

☆ **Note:**

1. Digit Position 1: Loop Shunt Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

2. Digit Position 2: Restore Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 3: Unit Status Reporting Code

Valid entries 0~F
For 3/1 extended, 4/2 and CFSK III formats, the loop fixed extended code will be automatically added as an extension.
Programming a "0" disables Unit Status Reporting for all loops.

Loop Fixed Extended Code

Extended code	Type	Extended code	Type	Extended code	Type
1	Low battery voltage	5	Communication failure	9	loop trouble restoral
2	AC failure	6	Battery Restoral	A	No used
3	Bell fuse failure	7	AC Restoral	B	Watchdog Restoral
4	Loop trouble	8	Bell fuse Restoral	C	Completed Programming

4. Digit Position 4: Unit Status Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

5. Digit Position 5: Cancel Report Code

Valid entries 0~F.
For 3/1 extended,4/2 and CFSK III formats,the operator code will be added in the second digit
Programming a "0" disables Cancel Report code for all loops.

6. Digit Position 6: Cancel Report Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

● Test Report (CL 2 B)

CL		DP1	DP2	DP3	DP4	
2	**B**	0	0	1	6	#

☆ **Note:**

1. Digit Position 1 and Digit Position 2: Test Report Code

Valid entries 0~F
D P 1 uses 3/1 and 4/1 formats.
D P 1 and D P2 use 3/1 extended, 4/2 and CFSK III formats.
Program a "00" to disable Test Reports.

2. Digit Position 3 (Test Report Receiver Select)

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 4 (Test Report Interval)

Content	Type	Content	Type	Content	Type
1	1 hour	6	7 days	A	1 hour, if armed
2	2 hours	7	14 days	B	2 hours, if armed
3	4 hours	8	21 days	C	4 hours, if armed
4	12 hours	9	30 days	D	12 hours, if armed
5	24 hours			E	24 hours, if armed
Notice: If you want to set test interval correctly, Command Location A0 must be programmed.					

● Arming /Disarming Report Code (CL 2 C)

CL		DP1	DP2	DP3	DP4	
2	**C**	B	1	C	1	#

☆ **Note:**

1. Digit Position 1: Disarming Report Code

Valid entries 0~F
Operator code after disarming code uses 3/1,4/2 and CFSK III formats.
Program a "0" to disable Disarming Reports.

2. Digit Position 2: Disarming Report Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 3:Arming Report Code

Valid entries 0~F
Operator code after disarming code uses 3/1,4/2 and CFSK III formats.
Program a "0" to disable Arming Reports.

4. Digit Position 4: Arming Report Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

● Duress Report And Delay(CL 2D)

CL		DP1	DP2	DP3	DP4	DP5	
2	D	0	0	3	6	2	#

☆ **Note:**

1. Digit Position 1:Duress Report Code

Valid entries 0~F
Operator code after disarming code uses 3/1,4/2 and CFSK III formats.
Program a "0" to disable Duress Reports.

2. Digit Position 2: Duress Report Receiver Select

Content	Type	Content	Type
0	Receiver 1# with receiver 2# as back-up	2	Receiver 2# only
1	Receiver 1# only	3	Receiver 1# and Receiver 2# (Dual Reporting)

3. Digit Position 3: Entry Delay Time

Content	Type	Content	Type	Content	Type
1	10 seconds	6	60 seconds	B	110 seconds
2	20 seconds	7	70 seconds	C	120 seconds
3	30 seconds	8	80 seconds	D	130 seconds
4	40 seconds	9	90 seconds	E	140 seconds
5	50 seconds	A	100 seconds	F	150 seconds

Note: If programmed delay time exceeds 150 seconds, please refer to Digit Position 4 of Command Location 1F to 26.

4. Digit Position 4:Exit Delay Time

Content	Type	Content	Type	Content	Type
1	10 seconds	6	60 seconds	B	110 seconds
2	20 seconds	7	70 seconds	C	120 seconds
3	30 seconds	8	80 seconds	D	130 seconds
4	40 seconds	9	90 seconds	E	140 seconds
5	50 seconds	A	100 seconds	F	150 seconds

Note: If programmed delay time exceeds 150 seconds, please refer to Digit Position 4 of Command Location 1F to 26.

5. Digit Position 5: Audible Time

Content	Type	Content	Type	Content	Type
1	2 minutes	3	10 minutes	5	30 minutes
2	5 minutes	4	15 minutes		

● Hearing/Seeing switch (CL 2E)

CL		DP1	DP2	DP3	DP4	DP5	
2	E	1	1	0	0	0	#

☆ **Note:**

1. Digit Position 1: Entry Prewarning Enable

Content	Type	Content	Type
0	No	1	Yes, entry delay chirp (hold)

2. Digit Position 2: Exit Prewarning Enable

Content	Type	Content	Type
0	No	1	Yes, exit delay chirp

3. Digit Position 3: Audible Reverse Operation

Content	Type	Content	Type
0	No	1	Yes, provide bell voltage in no alarm status; bell needs external power.

4. Digit Position 4: Phone Ring Back

Content	Type
0	No
1	Yes, bell self-check for local or non-supervised users after arming or exiting delay; send closedown report for supervised users after arming; bell time is 2s.

5. Digit Position 5:Disable Loop LEDs

Content	Type	Content	Type
0	No	1	Yes, close LED of keypad loop after 5 minutes

● Unit Control (CL 2F)

CL		DP1	DP2	DP3	DP4	
2	**F**	1	0	0	1	#

☆ **Note:**

1. Digit Position 1: Local System Only

Content	Type	Content	Type
0	No	1	Yes, disable all communication functions except for RPS function

2. Digit Position 2: Daily Battery Dynamic Test Enable

Content	Type	Content	Type
0	No	1	Yes, test battery capacity every 24 hours

3. Digit Position 3: 4 Minutes On-power Delay Enable

Content	Type	Content	Type
0	No	1	Yes, disable alarm in 4 minutes on-power delay

4. Digit Position 4: Soft Zone Operation Enable

Content	Type	Content	Type
0	No	1	Yes, enable all soft zone

● Loop Switch (CL 30~37)

CL		DP1	DP2	DP3	DP4	
3	**0**	0	0	0	0	#

☆ **Note:**

1. Command Location

Content	Type	Content	Type
30	Loop 1	34	Loop 5
31	Loop 2	35	Loop 6
32	Loop 3	36	Loop 7
33	Loop 4	37	Loop 8

2. Digit Position 1: Door Chime Enable

Content	Type	Content	Type
0	No	1	Yes, keypad chirp 2s after alarm in disarming status

3. Digit Position 2: Shunting Enable

Content	Type
0	No, makes this zone a priority zone. (no shunt)
1	Yes, authorized users can bypass or force arm.
Refer to Digit Position 1 of Command Location 01~08 for Authorized class of arming type	

4. Digit Position 3: Group Shunting Enable

Content	Type	Content	Type
0	Yes	1	No, enable home or instant/home arming as a zone of group shunt.

5. Digit Position 4: Delay Before Dial Enable

Content	Type	Content	Type
0	No	1	Yes, the loop will delay dialling on alarm for time programmed in DP 1 of CL 0B

● Test Report Countdown Timer (CL A0)

CL		DP1	
A	**0**	0	#

1. **Digit Position 1: Set Test Report Countdown Timer**

Content	Type	Content	Type	Content	Type
0	15 minutes	6	6 hours	C	18 hours
1	30 minutes	7	8 hours	D	20 hours
2	1 hour	8	10 hours	E	22 hours
3	2 hours	9	12 hours	F	24 hours
4	3 hours	A	14 hours		
5	4 hours	B	16 hours		

Notice: Refer to Digit Position 4 of Command Location 2B for setting interval of two reports.

2. Function Description

This command sets the time when the first Test Report is transmitted to the central station. The system will use this transmission time whenever it is powered up or the CPU is reset.

TABLE OF LHD6003-8 SYSTEM FACTORY DEFAULT

☆ **Installer Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**0**	0	1	2	3	4	5	#

☆ **Operator 1# Code (Master Code) (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**1**	C	1	2	3	4	E	#

☆ **Operator 2# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**2**	9	2	E	0	0	0	#

☆ **Operator 3# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**3**	9	3	E	0	0	0	#

☆ **Operator 4# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**4**	9	4	E	0	0	0	#

☆ **Operator 5# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**5**	9	5	E	0	0	0	#

☆ **Operator 6# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**6**	9	6	E	0	0	0	#

☆ **Operator 7# Code (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**7**	9	7	E	0	0	0	#

☆ **Operator 8# Code (Guest Code) (Name:)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**8**	9	8	E	0	0	0	#

☆ **Arming/Password Option**

CL		DP1	DP2	DP3	DP4	
0	**9**	0	0	1	1	#

☆ **Communication Format**

CL		DP1	DP2	DP3	DP4	
0	**A**	6	7	6	7	#

☆ **Communication Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**B**	0	3	1	1	0	8	#

☆ **User 1#**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**C**	0	0	0	0	0	0	#

☆ **Receiver 1# Phone Number (digits 1~6)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**D**	E	0	0	0	0	0	#

☆ **Receiver 1# Phone Number (digits 7~12)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**E**	0	0	0	0	0	0	#

☆ **Receiver 1# Phone Number (digits 13~18)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
0	**F**	0	0	0	0	0	0	#

☆ **User 2#**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**0**	0	0	0	0	0	0	#

☆ **Receiver 2# Phone Number (digits 1~6)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**1**	E	0	0	0	0	0	#

☆ **Receiver 2# Phone Number (digits 7~12)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**2**	0	0	0	0	0	0	#

☆ **Receiver 2# Phone Number (digits 13~18) (hold)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**3**	0	0	0	0	0	0	#

☆ **RPS Phone Number(digits 1~6) (hold)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**4**	E	0	0	0	0	0	#

☆ **RPS Phone Number(digits 7~12) (hold)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**5**	0	0	0	0	0	0	#

☆ **RPS Phone Number(digits 13~18) (hold)**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**6**	0	0	0	0	0	0	#

☆ **Loop 1 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**7**	3	1	E	1	6	1	#

☆ **Loop 2 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**8**	3	2	E	2	6	2	#

☆ **Loop 3 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**9**	3	3	E	3	6	3	#

☆ **Loop 4 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**A**	3	4	E	4	6	4	#

☆ **Loop 5 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**B**	3	5	E	5	6	5	#

☆ **Loop 6 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**C**	3	6	E	6	6	6	#

☆ **Loop 7 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**D**	3	7	E	7	6	7	#

☆ **Loop 8 Report Code**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**E**	3	8	E	8	6	8	#

☆ **Loop 1 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
1	**F**	1	2	1	3	2	3	#

☆ **Loop 2 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**0**	1	2	1	2	2	3	#

☆ **Loop 3 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**1**	1	2	1	2	2	3	#

☆ **Loop 4 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**2**	1	2	1	2	2	3	#

☆ **Loop 5 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**3**	1	2	1	2	2	3	#

☆ **Loop 6 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**4**	1	2	1	2	2	3	#

☆ **Loop 7 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**5**	1	2	1	9	3	3	#

☆ **Loop 8 Control**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**6**	1	2	1	9	1	5	#

☆ **Panic**

CL		DP1	DP2	DP3	DP4	
2	**7**	1	1	1	3	#

☆ **Fire**

CL		DP1	DP2	DP3	DP4	
2	**8**	1	1	1	1	#

☆ **Burglary**

CL		DP1	DP2	DP3	DP4	
2	**9**	1	1	1	2	#

☆ **Event Report**

CL		DP1	DP2	DP3	DP4	DP5	DP6	
2	**A**	1	1	A	1	D	1	#

Test Report

CL		DP1	DP2	DP3	DP4	
2	**B**	0	0	1	6	#

Arming/Disarming Report Code

CL		DP1	DP2	DP3	DP4	
2	**C**	B	1	C	1	#

Duress Report and Delay

CL		DP1	DP2	DP3	DP4	DP5	
2	**D**	0	0	3	6	2	#

Hearing/Seeing Switch

CL		DP1	DP2	DP3	DP4	DP5	
2	**E**	1	1	0	0	0	#

Unit Control

CL		DP1	DP2	DP3	DP4	
2	**F**	1	0	0	1	#

Loop 1 Switch

CL		DP1	DP2	DP3	DP4	
3	**0**	0	0	0	0	#

Loop 2 Switch

CL		DP1	DP2	DP3	DP4	
3	**1**	0	1	0	0	#

Loop 3 Switch

CL		DP1	DP2	DP3	DP4	
3	**2**	0	1	0	0	#

☆ **Loop 4 Switch**

CL		DP1	DP2	DP3	DP4	
3	**3**	0	1	0	0	#

☆ **Loop 5 Switch**

CL		DP1	DP2	DP3	DP4	
3	**4**	0	1	0	0	#

☆ **Loop 6 Switch**

CL		DP1	DP2	DP3	DP4	
3	**5**	0	1	0	0	#

☆ **Loop 7 Switch**

CL		DP1	DP2	DP3	DP4	
3	**6**	0	0	0	0	#

☆ **Loop 8 Switch**

CL		DP1	DP2	DP3	DP4	
3	**7**	0	0	0	0	#

☆ **Set Test Report Countdown Timer**

CL		DP1	
A	**0**	0	#

Technical Parameters

Rated working voltage: 220VAC
Working voltage range: 190VAC~240VAC
Static working current: ⩽100mA
Back-up battery: 12V/7AH, sealed lead acid rechargeable battery
Low battery voltage alarm : ⩽10.5V
Working environment temperature: -10℃ ~ +55℃
Working environment humidity: ⩽95%

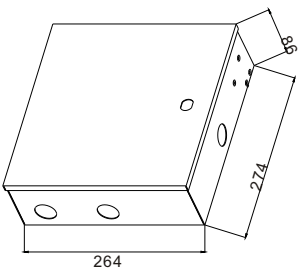


Figure 1: the controller exterior size (unit：mm)

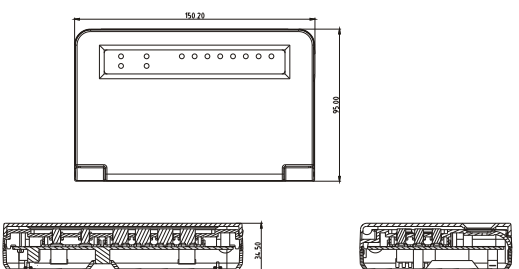


Figure 2: keypad exterior size(unit：mm)