



FCC ID No.: PCSAPOLLO11282004



**English Version** 

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APOLLO C1-6PB $6 \text{ Push Buttons, we offer } 4/6/8/10/12 \text{ push buttons}$	
C for Crane/Hoist used, 1 for single step,  2 for double steps  Model	

Note: The device complies with part 15 of FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must not accept any interference received, including interference that may cause undesired operation.

The FCC require the user to be notified that any changes or modifications made to this device that are not expressly approved by 3e may avoid the user's authority to operate the equipment.

To comply with FCC RF exposure requirement, this device and its antenna must no be co-located or operating in conjunction with any other antenna or transmitter.



#### Introduction ©

To satisfy various requests in remote controller, we are now finally researched a high quality, industrial grade remote controller --- APOLLO system. Provided from 4 to 12 push buttons, further on you can decide if taking with reserved functions or not, and really feel the convenience!

APOLLO system, a reliable, durable remote controller, which can be instead of the original wired control when the environment is too dangerous, something as electroplate field, steel factory, or the field temperature is too high. Of course, it can also raising the producing efficiency!

Except the dust / water / oil proof casing, APOLLO can even resist strong shock, or the extreme weather. Our professionalism surpass the original design, improved possible faults, the section assembled push button parts save lots of pennies from unnecessary spend, which can also easily up-grade to different models.

Your equipment does not have to adapt the remote controller, but it can really become an accessory! Once the transmitter housing has to be renewed, you can just exchanging the damaged section, but not the whole one. Only the reasonable spend can be accepted, in this point, we have considered thoroughly in APOLLO system.

Take instant fix holder, APOLLO receiver makes installation steps much faster and easier. The internal diagram / components scheme are hundred percent precision but not complex, easy to understand and repair, specially save time in periodic maintenance. Components have been placed into a tough control box, protection ups to IP65, contains dust / water / oil and ultraviolet, light weight, easy carry on, save energy and time in device installation.

## Model Option **☺**

Model No.	description	
ONE STEP:		
C1-4PB	4 pushbuttons, w/ EMS stop button	
C1-6PB	6 pushbuttons, w/ EMS stop button	
C1-8PB	8 pushbuttons, w/ EMS stop button	
C1-8PB/AB	8 pushbuttons , A/B hoist use, w/ EMS stop button	
C211	1 <sup>st</sup> line two steps, 2 <sup>nd</sup> , 3 <sup>rd</sup> one step, w/ EMS stop button	
C1-10PB	10 pushbuttons, w/ EMS stop button	
C1-12PB	12 pushbuttons, w/ EMS stop button	
TWO STEPS:		
C2-4PB	4 pushbuttons, w/ EMS stop button	
C2-6PB	6 pushbuttons, w/ EMS stop button	
C2-8PB	8 pushbuttons, w/ EMS stop button	
C2-8PB/AB	8 pushbuttons , A/B hoist use, w/ EMS stop button	
C2-8PB/AL	8 pushbuttons, alarm & light, w/ EMS stop button	
C2-10PB	10 pushbuttons, w/ EMS stop button	
C2-12PB	12 pushbuttons, w/ EMS stop button	



## **Technical Specifications ©**

- > Take dual-security design, equipment protected thoroughly, every output will automatically break when CPU out of work.
- ➤ Take common mode non-earth ground EMI noise-rejection circuit, which can against receiver malfunction occurred by operator's error connection, also releasing the installation complex.

#### Transmitter

#### Frequency range:

433 MHz ( 20 channels ) 868 MHz ( 20 channels )

Channel spacing: 50KHz, 60KHz Transmitting power: < 10mW ( 10dBm ) Antenna: Internal type, impedance as 50Ω

Security codes: 256 sets

Operation temperature: 0°C ~ +70°C

Enclosure: IP65

Source voltage: 4xAA (1.5V) alkaline batteries

or nickel rechargeable batteries

Consumption: < 7mA

**Size:** 217×70×49 mm (C1-6PB)

**Weight:** 515g (C1-6PB)

#### Receiver

#### Frequency range:

433 MHz ( 20 channels ) 868 MHz ( 20 channels )

Channel spacing: 50KHz, 60KHz

**Antenna**: Internal type, impedance as  $50\Omega$ 

Relay: 5A, 250V, AC

Operation temperature: -10°C ~ +70°C

Enclosure: IP65

Source voltage: 220V AC, 50 / 60Hz (STD)

Consumption: < 12W

Size: 204x121x65 mm ( C1-6PB )

Weight: 1240g (C1-6PB)

#### How to install <sup>©</sup>

It would be very easy to install APOLLO receiver, the necessary tools are as following:

Long nose pliers diagonal cutting pliers cross head screwdriver
Hexagonal head wrench multimeter Electric drill Cable and feeder

#### Steps:

- (a) Ensure the original wired control of crane is correct.
- (b) Ensure shut down the main power source of crane before installation.
- (c) Mount in a firmed site where the receiver can be seen easily by operator.
- (d) Keep away the mounted site from motors, relays, cables, high voltage wiring and devices, or the protrusion of building where crane moves. Select a firmed site without metal shielding around.
- (e) Do not install the other same channel remote controller within 50 meters.
- (f) Ensure the wiring layout correctly and safely.
- (g) Test each motion / function after installation, ensure transmitter output have the same motion as the original wired control.
- (h) Fix the wired pendant in safe position.



Take 4pcs of 8mm tap screws, screw tightly by electronic tools.



Mounted receiver in a firmed site where the dual color LED can be seen

(fig. 1) (example for fix / install receiver)

- (a) Ensure the output contact as Main / A / B/ C / D / E/ F / G / H can not over 5A ( see Wiring diagram after page 18 ).
- (b) Please double check exactly the wiring layout after receiver's installation, then turn the power on.
- (c) Please mount the receiver away from INVERTER, MOTOR and connected CABLE at least 3M to avoid interference happened

## Operation steps ©

#### How to start up the Apollo device:

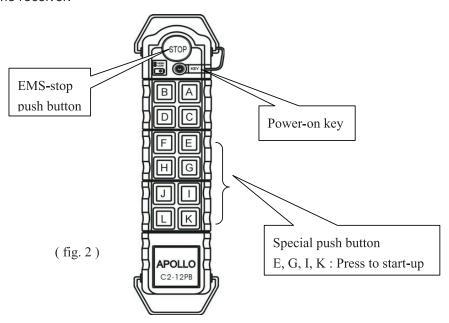
- 1. Power on receiver.
- 2. Insert the transmitter power-on key and turn on the "mushroom" EMS push button.
- 3. Press any button and release to start-up receiver.
- 4. Special pushbutton to start-up if required. (please refer fig. 2)
- -for Hx-6PB, press 'E 'button and release to start-up receiver.
- -for Hx-8PB, press 'G' button and release to start-up receiver.
- -for Hx-10PB, press 'I' button and release to start-up receiver.
- -for Hx-12PB, press ' K ' button and release to start-up receiver.

#### How to turn off the APOLLO device:

- 1. Press down the "mushroom "EMS push button (At this moment, the internal Main contact will be OFF).
- 2. Pull out the transmitter power-on key.



#### 3. Shut down the receiver.



## Function Setting: ©

APOLLO system has complete setting software, which accepts different requests from customers. An extra Function Kit may be needed for custom-made settings. (See fig. 3)

## NOTE:

- 1) The function setting program is available to operate under Windows 2000 & XP Version.
- 2) The function kit has to extra plug in the JP3 ( DB9 pin ) on **RECEIVER** decoder ( relay ) board to work the function setting.
- 3) Operation steps:
  - > Clip 'start 'in Windows 2000/ XP
  - > Select 'program '
  - > Select 'Apollo '
  - Clip 'project AP3 ' ... set up program starts now

Every set of motion (A/B, C/D, E/F, G/H, I/J, K/L) all can be set function per customer's Need. Function setting options are as the following: (See fig. 4)

1) Interlock – ex-factory setting, when pressing A and B simultaneously, no function output, this is for security reason.



2) Non-Interlock – For some occasions if the interlock is not necessary, just clip the 'non-interlock 'function.

#### The above pushbuttons can also be set independently for the following functions:

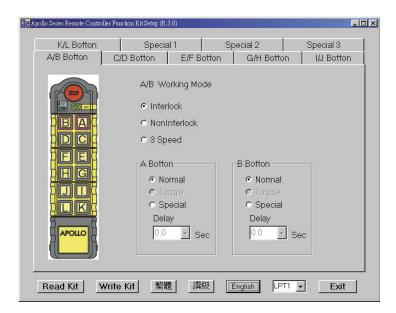
- 1) Normal Normal function, press button and RELAY is on, release button is off.
- 2) Toggle Press Firstly is ON, press again is OFF, please note the function is only for 1<sup>st</sup> speed, 2<sup>nd</sup> speed is no such function.
- 3) Special For some special application, such as for hoist 1<sup>st</sup> step and 2<sup>nd</sup> step is operated by two different motor, the special function setting can be set to SWITCH the first motor and second motor. And 1<sup>st</sup> step and 2<sup>nd</sup> step can set "SWITCH DELAY TIME " from 0.1~5 sec. Or you may set two Trolleys ( Trolley A/B ) be operated by turns.
- < using Toggle & Interlock setting >. ( see fig.4 )

Function Kit (fig. 3)

4) Main Relay "linked with " – Main relay can be set to link with movement relay, this function normally to apply on hydraulic system for oil pump use. (see fig. 5)

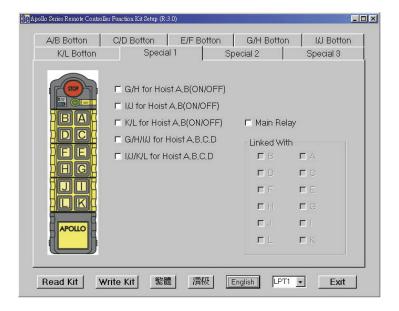
### NOTE!!

Every set of motion (A/B, C/D, E/F, G/H, I/J, K/L) is interlocked to each other as ex-factory Setting. That means to press up/down simultaneously, there is no function output for security reason.



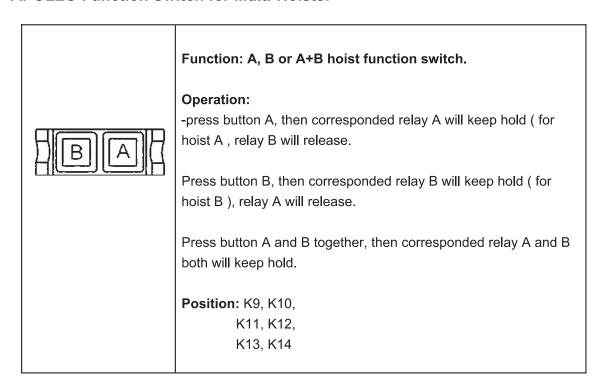
(fig. 4)





(fig. 5)

## **APOLLO Function Switch for Multi-Hoists:**







Function: A or B or C or D hoist function switch.

#### Operation:

Press button A or B or C or D, then corresponded relay A or B or C or D will keep hold.

**Position:** K9, K10, K11, K12, K11, K12, K13, K14

### Auto shut down on Receiver ©

APOLLO receiver could be set to shut down mode automatically, for higher security request, shorten S2.4 would make receiver shut down automatically after 5 minutes without operation (only setting ex-work on demand).

#### Status Indicator of transmitter

APOLLO transmitter has a dual-color indicator ( green\*/red\*\* ) to show various status as follows :

Stand-by	green indicator light is blinking 1 time every 4 sec. (EMS is on )
operation green indicator light is blinking 1 time every 1 sec. (EMS is o	
Power off	No indicator light is blinking. ( EMS is off )

**Green\*:** battery power is sufficient.

Red\*\*: battery power low. Please re-new 4pcs of AA/UM-3 (1.5V) alkaline batteries, or nickel rechargeable batteries immediately.



## Status Indicator of Receiver Box.1.1 and Box. 2 @

### 1. BOX. 1.1\*:

**APOLLO receiver box.1. 1** has a 4- indicator: power light, operation light, DATA light and RF light. And the 4-LED indicator ( green/red ) also shows various status as follows:

PWR  • I PWR	Power light.  GREEN lighting when power on		
OP  OP	Operation light.  GREEN lighting when start-up. Light OFF when EMS stop pressed or power off		
DATA  DATA	Data light.  RED when buttons are pressed ( in operation ), OFF when buttons are released (without operation ) RED light blinks slowly when data is incorrect RED light blinks fast when ID codes are incorrect		
RF  ● RF	Frequency light.  RED lights when TX is pressed ( in operation )  Light blinks slightly when buttons are released (without operation )		

Box. 1.1\* is applied on C1-4, 6, 8PB, C211, and C2-4PB.

TX\*: transmitter RX\*: receiver

### **2. BOX.**2.1

**APOLLO receiver** has a dual-color indicator, **GREEN for POWER**, **RED for SQ\***. And the dual-color indicator ( green/red ) also shows various status as follows:



Stand-by	Both green and red indicator light is ON.		
operation	Green indicator light is ON, SQ ( red light ) is off.		
Power off	Both green and red light is OFF.		
SQ Red light blinking slowly (1 time/sec.)	Malfunction may be incurred.  Please follow our trouble shooting for repair or call service.		
SQ Red light blinking fast ( 3 times/sec. )	ID codes of transmitter and receiver is not corresponded.  Please check the codes of transmitter and receiver, and switch them to the same positions.		

SQ\*: RF indicator light

Please **NOTE** that the SQ will **NOT** be lighted (off) when using its own transmitter, it means the transmitted signal has been received by receiver and decoded correctly.

Main, A, B, C, D, E, F, G, H, I, J, K, L has its own indicator. When indicator is light, it means the relay contact is "On ", vice versa.

#### Precaution ©

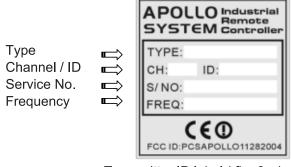
- ✓ For safety consideration, complete training can only be offered / authorized to the operator.
- ✓ Please read thoroughly the operation manual before using APOLLO system.
- ✓ Regular maintenance / testing can extend the components' life, malfunction will also be found prior.
- ✓ Before operating the transmitter please check by power-on key, see if the battery power is sufficient. If not, please change a whole set of new battery. For a long term period without operation we suggest you to take out of the batteries.
- ✓ Do not try to change or move the internal components without authorization, please contact your supplier, or the professional engineer who has the experience in industrial remote controller for maintenance / repairs.

When the remote controller be struck by lightning, please stop operation and contact your supplier as soon as possible.



### ID Label ©

Every APOLLO system has its identification PC label, which defines the device's type, ID, service number, frequency and channel. For any inquiry please advise your supplier the service number for a faster solution.





Transmitter ID label (fig. 6)

receiver ID label (fig. 7)

## Spare Parts List ©

APOLLO Transmitter		APOLLO Receiver	
Spare Part	Abbreviation	Spare Part	Abbreviation
Top casing (incl. EMS-stop button, Power-key, stainless steel hook)	TOC	Box 1.1 receiver casing – for C1-4PB, C1-6PB,C1-8PB, C211,C2-4PB used (incl. Nylon cable gland. Rubber shock-proof nut, 2pcs of instant fix holder)	BOX1.1
2 push buttons casing (incl. laser printed symbol & rubber cover )	2TH	Box.2 receiver casing – for C1-10PB C1-12PB, C2-6PB, C2-8PB, C2-10PB, C2-12PB used (incl. nylon cable glands, Rubber shock-proof nut, 2pcs of Instant fix holder)	BOX. 2.1
4 push buttons casing (incl. laser printed symbol & rubber cover )	4TH	Receiver High Frequency part	RFP
Bottom casing (incl. battery case, Stainless steel hook)	вос	C1-4PB decoder & relay board	DD41
Transmitter High frequency part	TFP	C1-6PB decoder & relay board	DD61
C1-4PB encoder board	ED41	C1-8PB decoder & relay board	DD81
C1-6PB encoder board	ED61	C1-10PB decoder & relay board	DD101



C1-8PB encoder board	ED81	C1-12PB decoder & relay board	DD121
C1-10PB encoder board	ED101 C2-4PB decoder & relay board DD42		DD42
C1-12PB encoder board	ED121 C2-6PB decoder & relay board DD		DD62
C2-4PB encoder board	ED42 C2-8PB decoder & relay board DD82		DD82
C2-6PB encoder board	ED62	062 C2-10PB decoder & relay board DD102	
C2-8PB encoder board	ED82	C2-12PB decoder & relay board DD122	
C2-10PB encoder board	ED102	C211 decoder & relay board DD211	
C2-12PB encoder board	ED122	Adapter DC24V ADP24	
P700 encoder board	ED71	Adapter AC110V/220V/380V~415V	ADP110/ ADP220/ ADP380
C211 encoder board	ED211	Cable 0.75mm <sup>2</sup> X16	CAP16
Nylon Belt for Transmitter	NB	Cable 0.5 mm <sup>2</sup> X25	CAP25
		External ANT. 1.5M	ANT

## Trouble shooting ©

We have come across problems that are not associated with wireless remote control unit but are crane/hoist or the device is subjected to control. Therefore it is essential that before trouble shooting, the problem is identified to be relating the wireless remote control unit.

When malfunction occurs, please check APOLLO system per the following stating or the brief trouble shooting chart step by step, or contact your supplier if device still can not be operated normally.

✓ IF: Press any push button in transmitter but there has no output, the indicator does not show...

Possibility: Check if the power-key has been inserted.

✓ IF: The power-key has been inserted, but still has no output, the indicator also does not show...

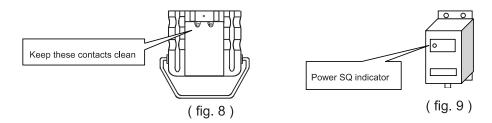
Possibility: Check if the EMS-stop push button has been pressed, if so, turn to " on ". Under the normal operation, EMS-stop push button shall **not** be pressed down.

✓ IF: The EMS-stop push button has been turned to "On ", the power-key is inserted, but still has no output, the indicator does not show either...

Possibility: Check if batteries have been inserted, or the power is sufficient. Renew a whole set of batteries and place with correct poles directions, and keep these contacts clean ( see fig.8 ).

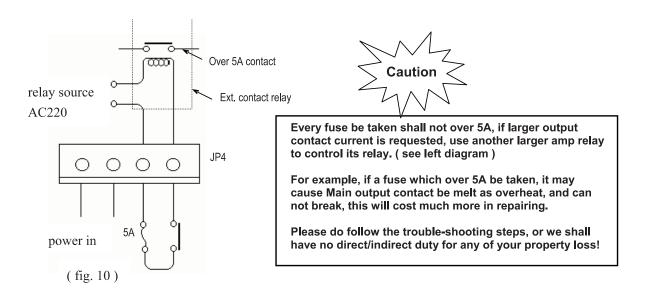
Press push button and see if indicator is responded to blink as 1 time every sec. If no, contact your supplier immediately.





- ✓ IF: Crane moves by itself, can not be controlled by both APOLLO and the original wired-control...
  - Possibility: Malfunction occurs in crane. Please repair the crane.
- ✓ **IF: Power on the receiver, but power SQ indicator ( see fig. 9 ) does not light...**Possibility: Power has not been sent to receiver. Check if F2\* fuse is burn and renew a 0.5A fuse.
- ✓ IF: Replaced a new 0.5A fuse, but still be burn after power on...

  Possibility: Receiver's internal circuit has some problems. Please contact your supplier.
- ✓ **IF: F2\* fuse has not been burn...**Possibility: The power input has some problems. Check if the input voltage is correct, if the input voltage has no problem, find out the reason of abnormal voltage, or contact your supplier.
- ✓ **IF:** The indicator of output Main contact has light, but its relay has no output... Possibility: The fuse of Main contact, F1 is broken. Renew another 5A fuse.



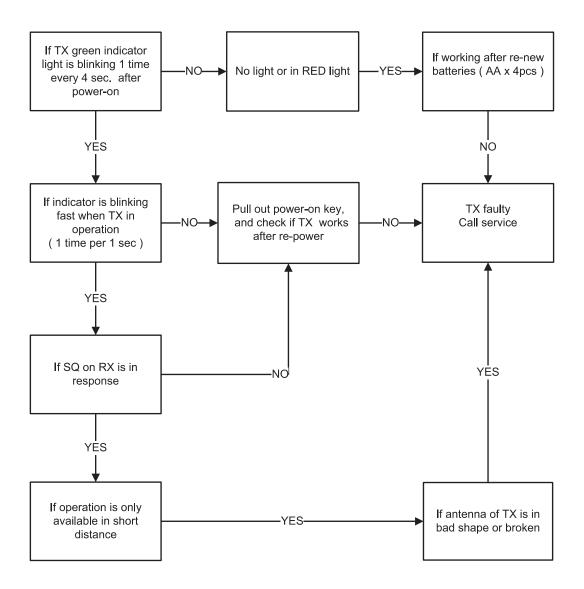
F1\*: power fuse (0.5A) F2\*: protection fuse (5A)

# Apollo System- Transmitter (TX) General trouble shooting

#### NOTE:

Please make certain the following status before trouble shooting.

- (1) The hoist/crane or device is subject to control works
- (2) The TX outlook is in good condition without any leakage
- (3) Receiver works.

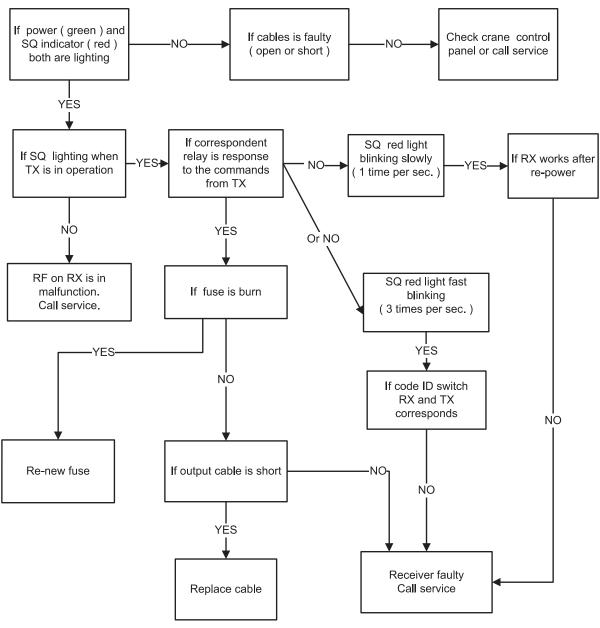


# Apollo System- Receiver (RX) General trouble shooting

## NOTE:

Please make certain the following status before trouble shooting:

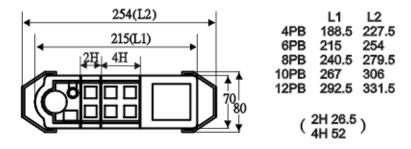
- (1) The crane or device being subject to control works.
- (2) The RX outlook is in good condition without any leakage
- (3) Transmitter works.



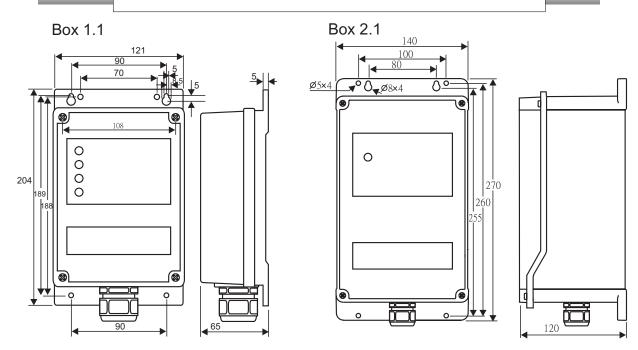


# **APOLLO** Transmitter Dimension

## **IP65**



# APOLLO Box.1.1/Box.2.1 Receiver Dimension



Box 1.1 For: C1-4PB, C1-6PB, C1-8PB, C2-4PB, C211

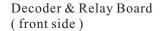
Box 2.1 For: C1-10PB, C1-12PB, C2-6PB, C2-8PB, C2-10PB, C2-12PB

Box 1.1 : IP67 Box 2.1 : IP67

Unit: mm



## APOLLO C1-4PB installation wiring diagram



⊢ A step 1

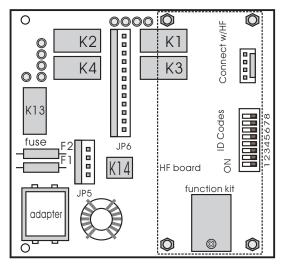
B step 1

Common

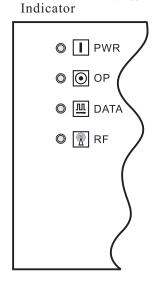
- C step 1 - D step 1 6 Common

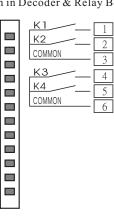
13 EMS-Stop = 14 Common

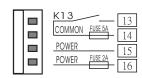
> AC-220V AC-380 ~415V



Wires Location in Decoder & Relay Board

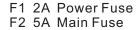








AC-380V AC-415V

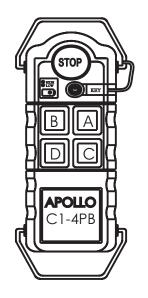






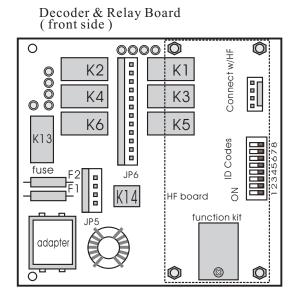
Button-legend (custom-made on demand)

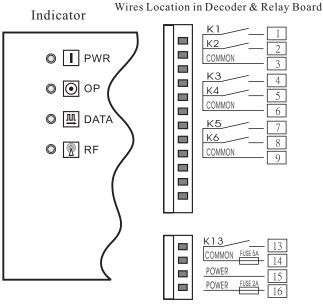




APOLLO C1-4PB

## APOLLO C1-6PB installation wiring diagram





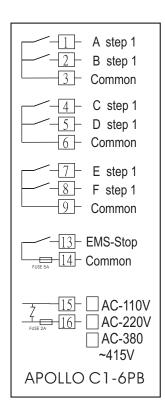
AC-110V

AC-220V

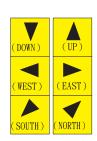
AC-380V

AC-415V

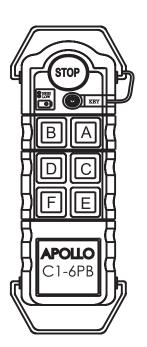
F1 2A Power Fuse F2 5A Main Fuse



K13 Main (stop) K14 CPU K1 1<sup>ST</sup> step in A K2 1<sup>ST</sup> step in B K3 1<sup>ST</sup> step in C K4 1<sup>ST</sup> step in D K5 1<sup>ST</sup> step in E K6 1<sup>ST</sup> step in F

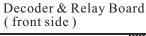


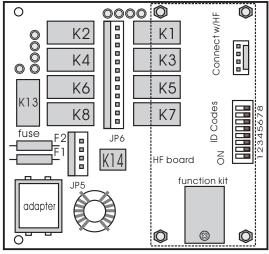
Button-legend (custom-made on demand)



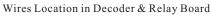


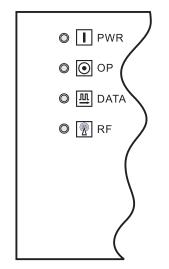
## APOLLO C211 installation wiring diagram

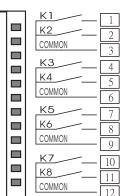


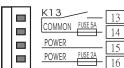


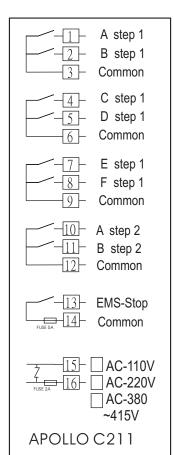






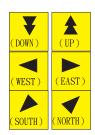




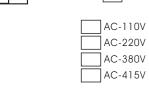


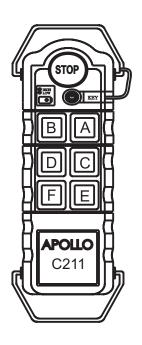
F1 2A Power Fuse F2 5A Main Fuse

K13 Main (stop) K14 CPU K1 1<sup>ST</sup> step in A K2 1<sup>ST</sup> step in B K3 1<sup>ST</sup> step in C K4 1<sup>ST</sup> step in D K5 1<sup>ST</sup> step in E K6 1<sup>ST</sup> step in F K7 2<sup>ND</sup> step in A K8 2<sup>ND</sup> step in B



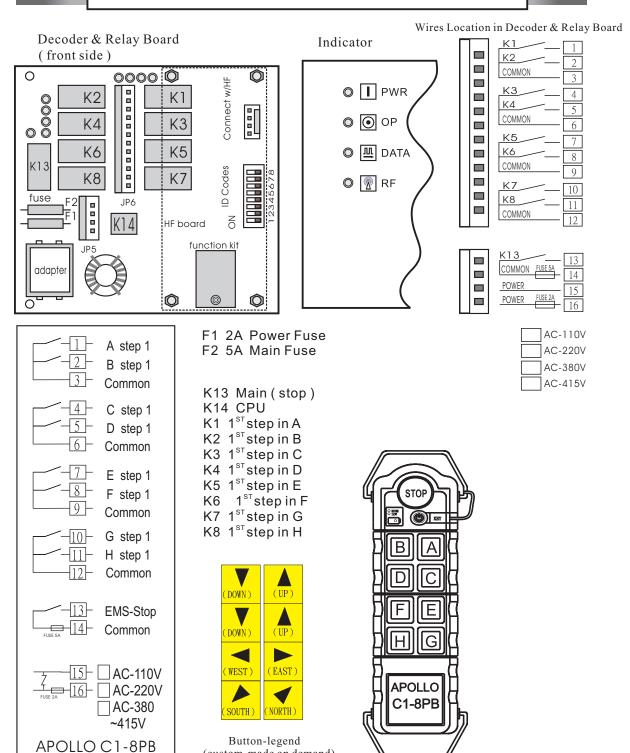
Button-legend (custom-made on demand)







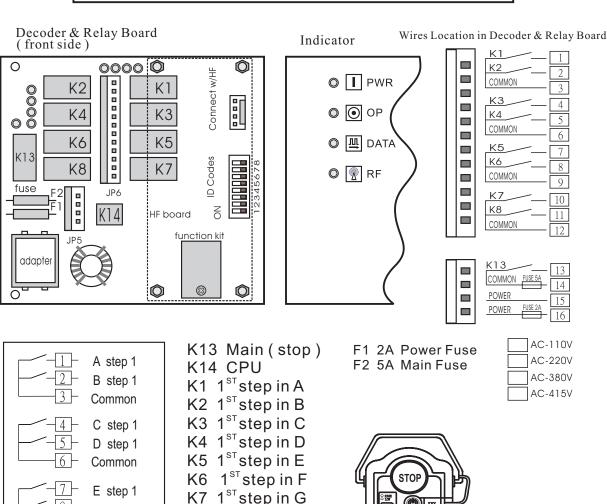
## APOLLO C1-8PB installation wiring diagram

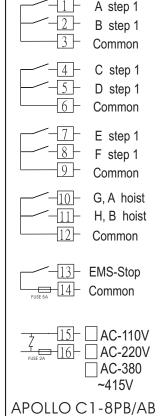


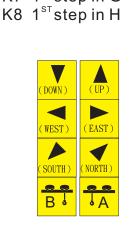
(custom-made on demand)



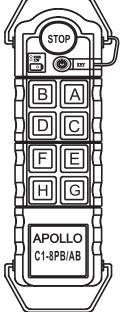
## APOLLO C1-8PB/AB installation wiring diagram



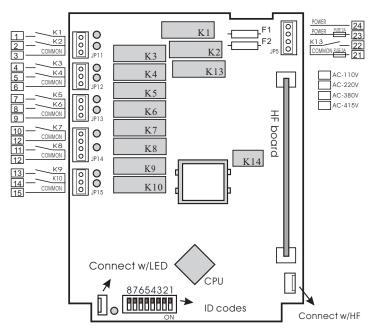




Button-legend (custom-made on demand)



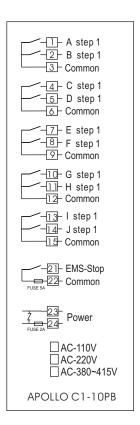
## APOLLO C1-10PB installation wiring diagram

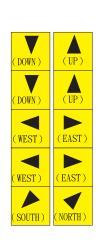


F1 2A Power Fuse F2 5A Main Fuse

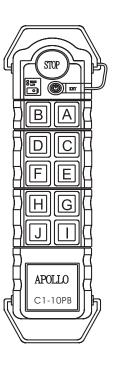
K14 CPU
K13 Main (stop)
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 1<sup>ST</sup> step in G
K8 1<sup>ST</sup> step in H
K9 1<sup>ST</sup> step in I
K10 1<sup>ST</sup> step in J

Decoder & Relay Board



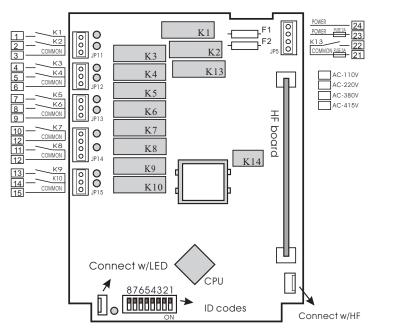


Button-legend (custom-made on demand)





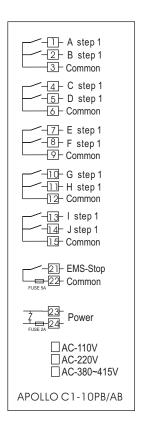
## APOLLO C1-10PB/AB installation wiring diagram

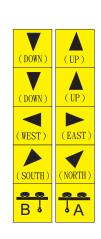


F1 2A Power Fuse F2 5A Main Fuse

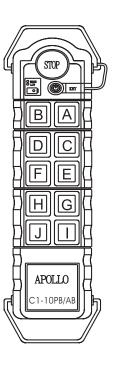
K14 CPU
K13 Main (stop)
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 1<sup>ST</sup> step in G
K8 1<sup>ST</sup> step in H
K9 1<sup>ST</sup> step in I
K10 1<sup>ST</sup> step in J

Decoder & Relay Board

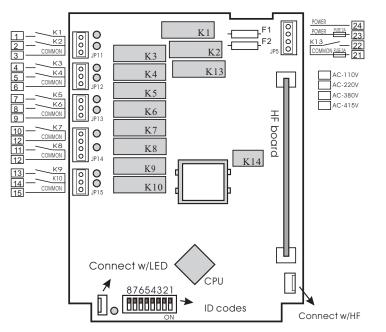




Button-legend (custom-made on demand)



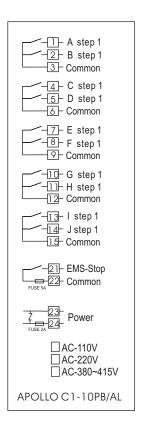
## APOLLO C1-10PB/AL installation wiring diagram

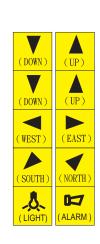


F1 2A Power Fuse F2 5A Main Fuse

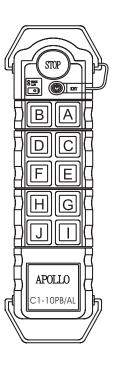
K14 CPU
K13 Main ( stop )
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 1<sup>ST</sup> step in G
K8 1<sup>ST</sup> step in H
K9 1<sup>ST</sup> step in I
K10 1<sup>ST</sup> step in J

Decoder & Relay Board



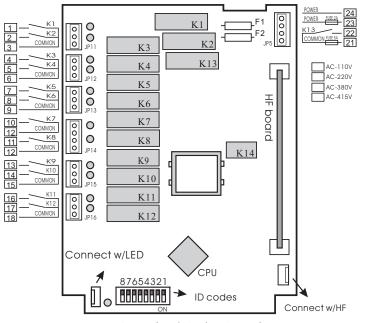


Button-legend (custom-made on demand)





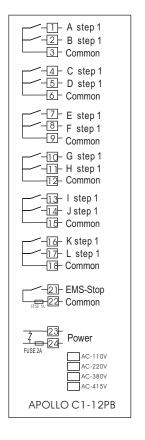
## APOLLO C1-12PB installation wiring diagram

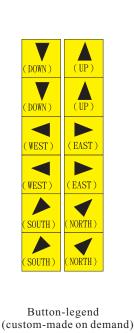


Decoder & Relay Board

F1 2A Power Fuse F2 5A Main Fuse

K14 CPU
K13 Main (stop)
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 1<sup>ST</sup> step in G
K8 1<sup>ST</sup> step in H
K9 1<sup>ST</sup> step in I
K10 1<sup>ST</sup> step in J
K11 1<sup>ST</sup> step in K
K12 1<sup>ST</sup> step in L





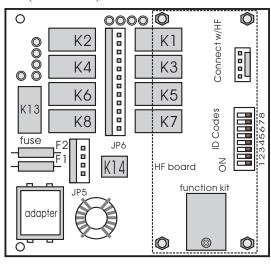


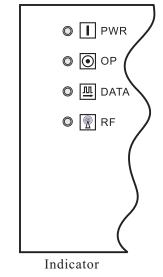


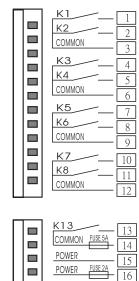
## APOLLO C2-4PB installation wiring diagram

Decoder & Relay Board (front side)

Wires Location in Decoder & Relay Board



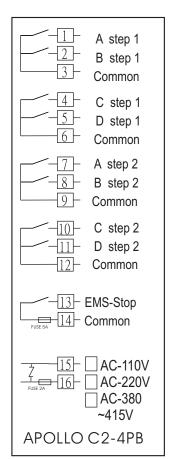




AC-110V AC-220V

AC-380V

AC-415V

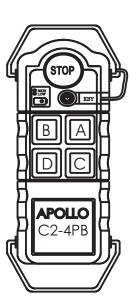


F1 2A Power Fuse F2 5A Main Fuse

K13 Main(stop)
K14 CPU
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 2<sup>ND</sup> step in A
K6 2<sup>ND</sup> step in B
K7 2<sup>ND</sup> step in C
K8 2<sup>ND</sup> step in D

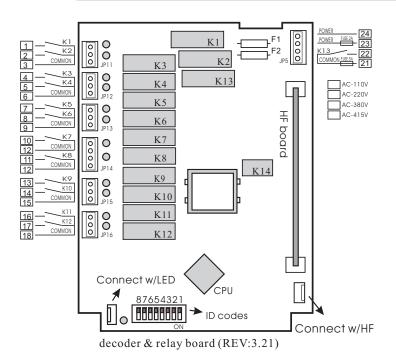


(custom-made on demand)



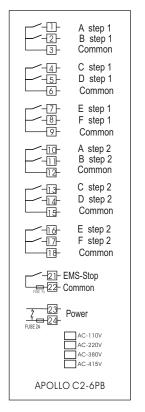


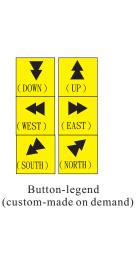
## APOLLO C2-6PB installation wiring diagram

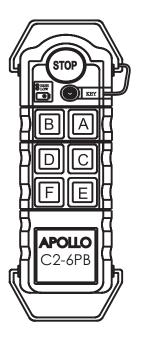


F1 2A Power Fuse F2 5A Main Fuse

K13 CPU
K14 Main (stop)
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 2<sup>ND</sup> step in B
K9 2<sup>ND</sup> step in C
K10 2<sup>ND</sup> step in D
K11 2<sup>ND</sup> step in E
K12 2<sup>ST</sup> step in F

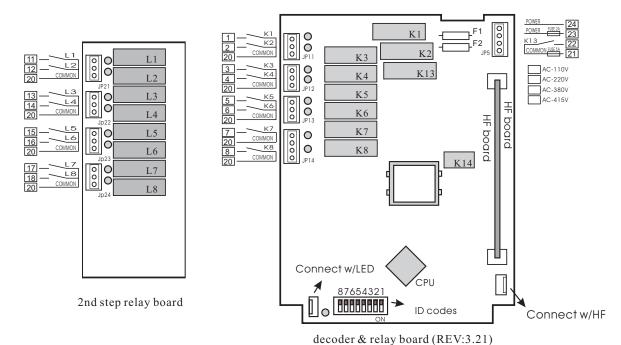




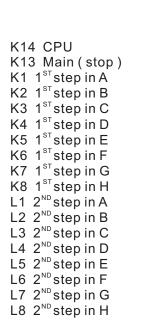


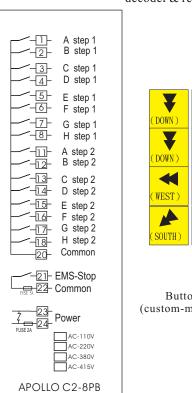


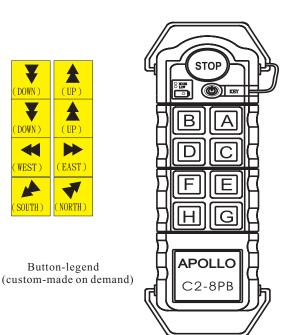
## APOLLO C2-8PB installation wiring diagram



F1 2A Power Fuse F2 5A Main Fuse

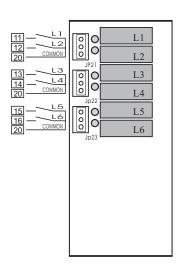




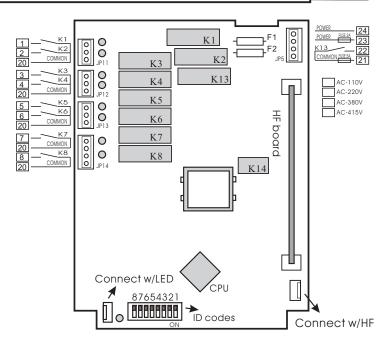




## APOLLO C2-8PB/AB installation wiring diagram



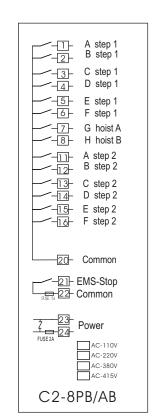
2nd step relay board

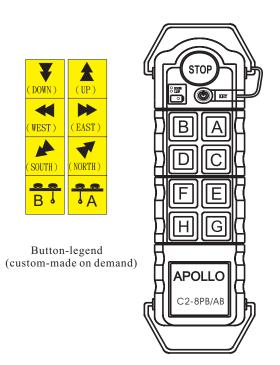


decoder & relay board (REV:3.21)

## F1 2A Power Fuse F2 5A Main Fuse

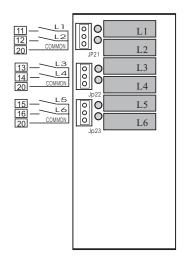
K14 CPU
K13 Main (stop)
K1 1<sup>ST</sup> step in A
K2 1<sup>ST</sup> step in B
K3 1<sup>ST</sup> step in C
K4 1<sup>ST</sup> step in D
K5 1<sup>ST</sup> step in E
K6 1<sup>ST</sup> step in F
K7 1<sup>ST</sup> step in G
K8 1<sup>ST</sup> step in H
L1 2<sup>ND</sup> step in A
L2 2<sup>ND</sup> step in B
L3 2<sup>ND</sup> step in C
L4 2<sup>ND</sup> step in E
L6 2<sup>ND</sup> step in F



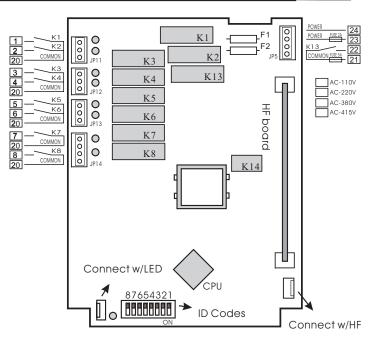




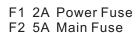
## APOLLO C2-8PB/AL installation wiring diagram



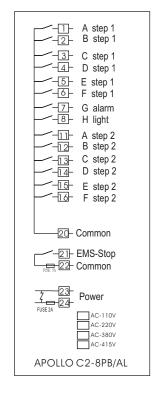
2nd step relay board

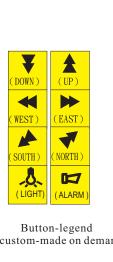


decoder & relay board (REV:3.21)

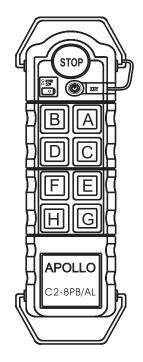


K14 CPU K13 Main (stop) K1 1<sup>st</sup> step in A K2 1<sup>st</sup> step in B K3 1<sup>st</sup> step in C K4 1<sup>st</sup> step in D K5 1<sup>st</sup> step in E K6 1<sup>st</sup> step in F K7 1<sup>st</sup> step in G K8 1<sup>ST</sup> step in H L1 2<sup>ND</sup> step in A L2 2<sup>ND</sup> step in B L3 2<sup>ND</sup> step in C L4 2<sup>ND</sup> step in D L5 2<sup>ND</sup> step in E L6 2<sup>ND</sup> step in F





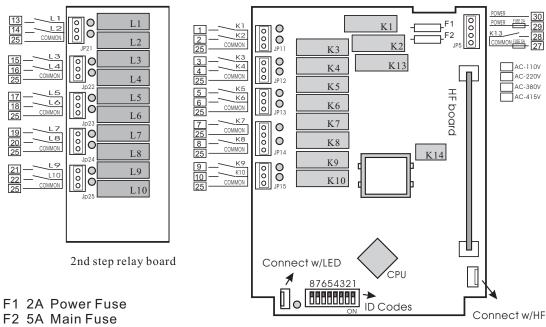
(custom-made on demand)

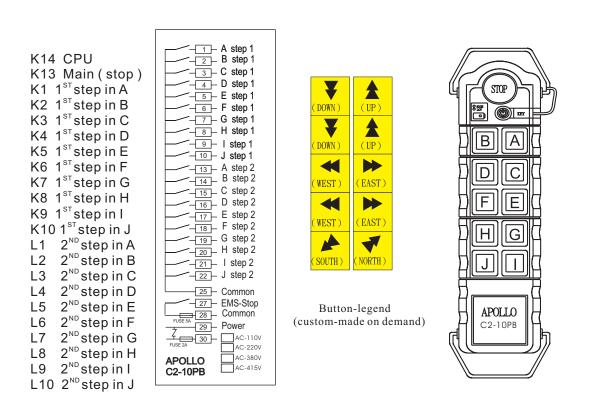




decoder & relay board (REV:3.21)

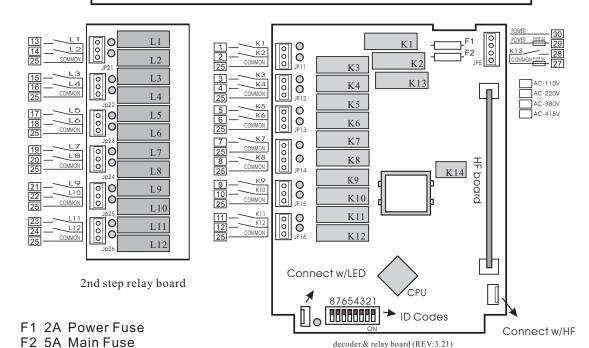
## APOLLO C2-10PB installation wiring diagram





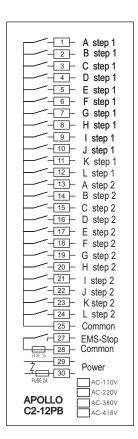


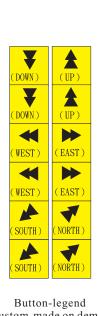
## APOLLO C2-12PB installation wiring diagram



K14 CPU K13 Main (stop) K1 1<sup>st</sup> step in A K2 1<sup>ST</sup> step in B K3 1<sup>ST</sup> step in C K4 1<sup>st</sup> step in D K5 1<sup>s⊤</sup>step in E K6 1<sup>s⊤</sup>step in F K7 1<sup>s⊤</sup>step in G K8 1<sup>sτ</sup>step in H K9 1<sup>st</sup> step in I K10 1<sup>st</sup> step in J K11 1<sup>st</sup> step in K K12 1<sup>s⊤</sup>step in L L1 2<sup>ND</sup> step in A L2 2<sup>ND</sup> step in B L3 2<sup>ND</sup> step in C L4 2<sup>ND</sup> step in D L5 2<sup>ND</sup> step in E L6 2<sup>ND</sup> step in F L7 2<sup>ND</sup> step in G L8 2<sup>ND</sup> step in H L9 2<sup>ND</sup> step in I L10 2<sup>ND</sup> step in J L11 2<sup>ND</sup> step in K

L12 2<sup>ND</sup> step in L







(custom-made on demand)



## **Limited One Year Warranty**

The equipment is warranted for one year from date of purchase against defects in materials or workmanship provided it was purchased from 3-Elite or authorized dealer.

This warranty does not cover equipment which has been abused or damaged by careless handling or shipping, OR damaged by nature disaster such as earthquake, typhoon ...etc.

The careless handling including self-change components, antenna, voltage; or circuits, and switches increased would be deemed as end of warranty, user should cover the repairing fee.

Should any defect develop, we will, at our option, repair or replace any defective parts without charge for either parts or labor. If we cannot correct the defect in your equipment, we will replace it at no charge with a new one. We will pay for the cost of returning your merchandise to you.

This warranty applies only to items returned to us, shipping costs prepaid, within one year from the date of purchase.

STANDARD ACCESSORY	
transmitter x 1 receiver x 1	handbook x 1
screw x 4 transmitter sleeve x 2	shoulder strap x 1

