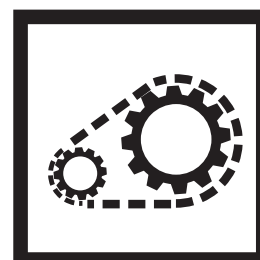


# APOLLO *Mini*

## RADIO REMOTE CONTROL

# HANDBOOK

AC version



**Please read the handbook carefully before operation to avoid any dangerous or damage may be incurred**

Nov 2012



## **TABLE OF CONTENTS**

1. Introduction .....	2
1.1 Features .....	2
2. Models.....	2
3. Transmitter .....	2
3.1 Technical data .....	2
3.2 Indicator .....	3
3.3 Power on steps .....	3
3.4 Power off steps .....	3
3.5 Standard mini butt on layout .....	3
4. Receiver .....	4
4.1 Technical data .....	4
4.2 Indicator .....	4
4.3 Installation notes .....	5
4.4 Receiver installation illustration.....	5
5. Trouble shooting-TX.....	6
6. Trouble shooting-RX .....	6
7. Parts list .....	7
8. Wiriing diagram .....	7
9. Warranty.....	13

## 1. INTRODUCTION

### 1.1 FEATURES:

1. Pocket-size transmitter, light ,more handy for operation.
2. Advance program design, quick & good performance on movements.
3. ABS +PC transmitter housing, water/shock/dust proof.
4. Single-low button transmitter, compact and lighter design, ensure safe & convenient operation .
5. Receiver with 4-LED indicators, quick, simple judgement for operation status & after services repair.

## 2. MODELS

Mini 20C	1 step, ( 2 ) buttons
Mini 30C	1 step, ( 3 ) buttons
Mini 40C	1 step, ( 4 ) buttons
Mini 60C	1 step, ( 6 ) buttons

※ All models are equipped with RED EMS stop ( push type )

## 3. TRANSMITTER

### 3.1 TECHNICAL DATA:

Operation distance: 30M ( open space )  
 Frequency : FM 418/433Mhz  
 Output power : < 10mW  
 Response time: 100mS  
 Antenna: internal type  
 Temperature: -10°C~+75°C  
 Source supply:1.5V(AA)\*2pcs or rechargeable battery  
 Enclosure: IP65  
 Material: Industrial ABS + PC  
 Address code : 256 sets  
 Weight : 95 g ( excluding batteries )  
 Size: 126x50x29mm



**3.2 INDICATOR:**

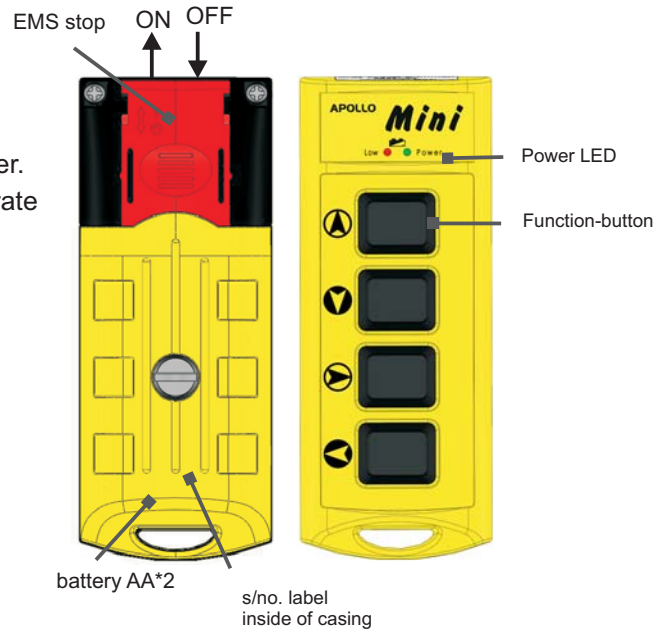
stand-by ( power on )	RED/GREEN both indicators are NOT lighting ( EMS ON )
operation	GREEN indicator light blinking
power low	RED indicator light blinking ( when button pressed )
power off	Indicator lights off ( EMS OFF )

**3.3 POWER-ON STEPS:**

- ( 1 ) Power on receiver.
- ( 2 ) PUSH up the RED stop button to power on the transmitter.
- ( 3 ) Press any button and release, now MINI is ready to operate ( now receiver power LED lights GREEN )

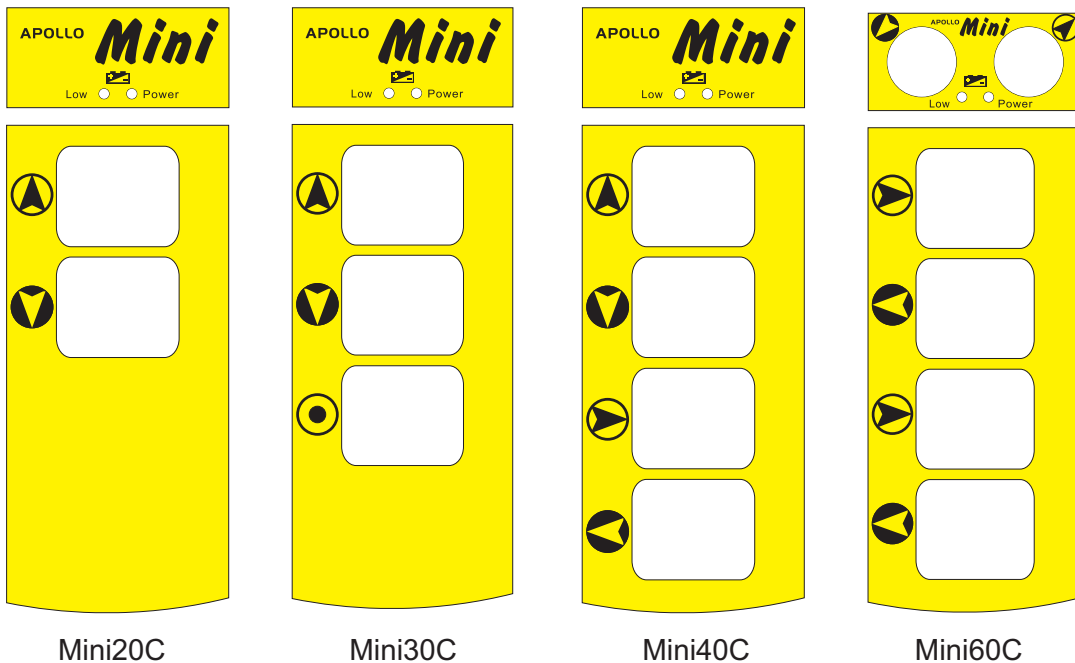
**3.4 POWER-OFF STEPS :**

- ( 1 ) Push down the RED stop button .



**CAUTION:** Please take out the batteries if long term period NOT operation.

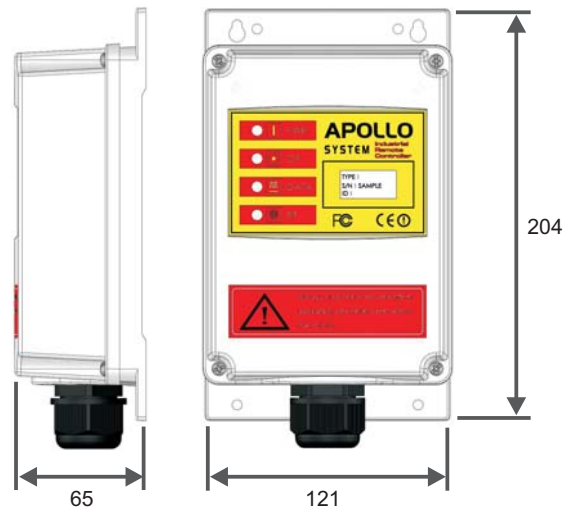
**3.5 STANDARD MINI BUTTON LAYOUT:**



## 4. RECEIVER

### 4.1 TECHNICAL DATA:

Frequency : FM 418/433Mhz  
 Sensitivity of RF:-110dBm  
 Antenna : internal type  
 Operation Temperature : -10°C~+75°C  
 Source Voltage: 110/220/380/415VAC,50/60Hz  
 Enclosure: IP67  
 Consumption: <12W  
 Security Code: 256sets  
 Weight: 560g ( Including the 8 core cable, 2m )  
 protection: short protection  
 Color: Grey



BOX 1.1

### 4.2 INDICATOR:

illustration	description
	<u>Power LIGHT</u> Green lights when power on
	<u>Operation LIGHT</u> GREEN lighting when power on Light OFF when EMS stop pressed or power off
	<u>Data LIGHT</u> 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
	<u>Frequency LIGHT</u> RED lights when TX is pressed ( in operation ) Light blinks slightly when buttons are released (without operation )

TX\*: transmitter

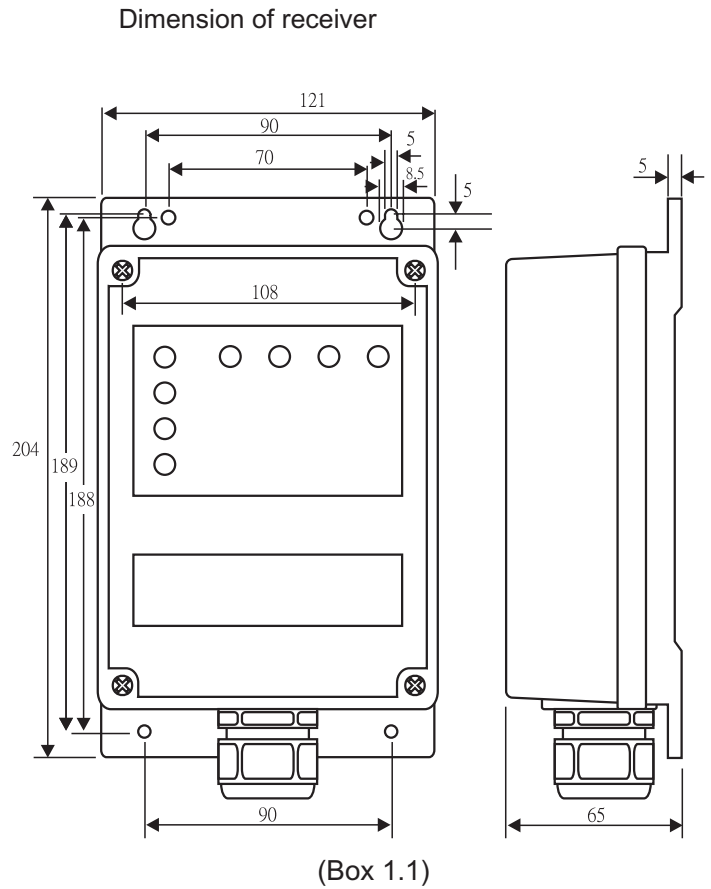


#### S/No. ID LABEL:

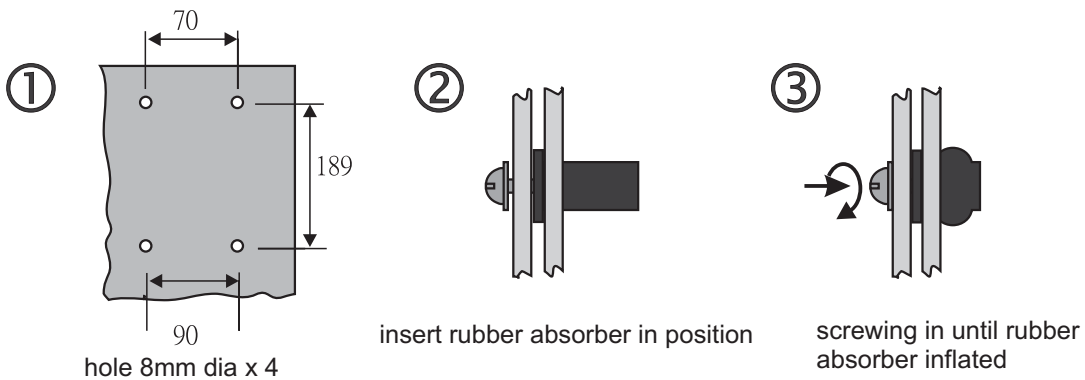
Each MINI unit has its own s/no. ID label which defines the device's type, ID, service number ( S/No. ), and channel. For any inquiry please advise your supplier the S/NO. for a faster service.

**4.3 INSTALLATION NOTES:**

- ( 1 ) Ensure the original wired control of equipment works.
- ( 2 ) Shut down equipment main power source before installation.
- ( 3 ) Mount in a firm site where the receiver can be seen easily by operator.
- ( 4 ) Keep away the mounted site from motors relays, cables, high voltage wiring and devices, or the protrusion of building where crane moves.  
Select a firm site without metal shield.
- ( 5 ) Ensure the wiring layout correctly and safely
- ( 6 ) Test each function to be sure each output has the same function as wired control
- ( 7 ) Put the wired pendant if has in safe position



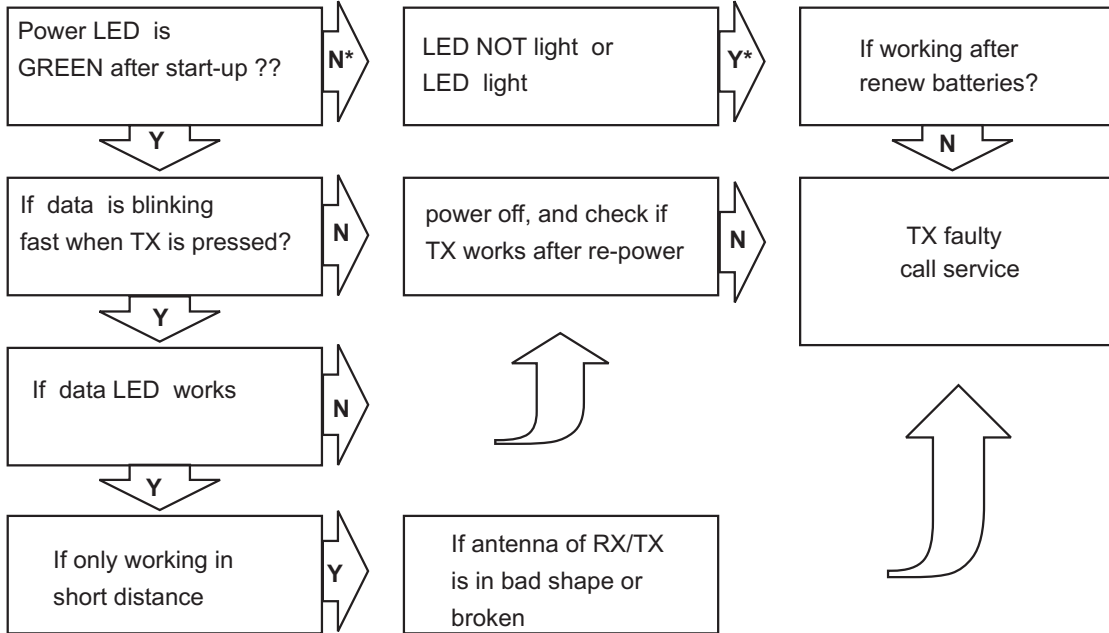
**4.4 RECEIVER INSTALLATION ILLUSTRATION :**



## 5. TROUBLE SHOOTING- TX

Please make sure the following status before trouble shooting.

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

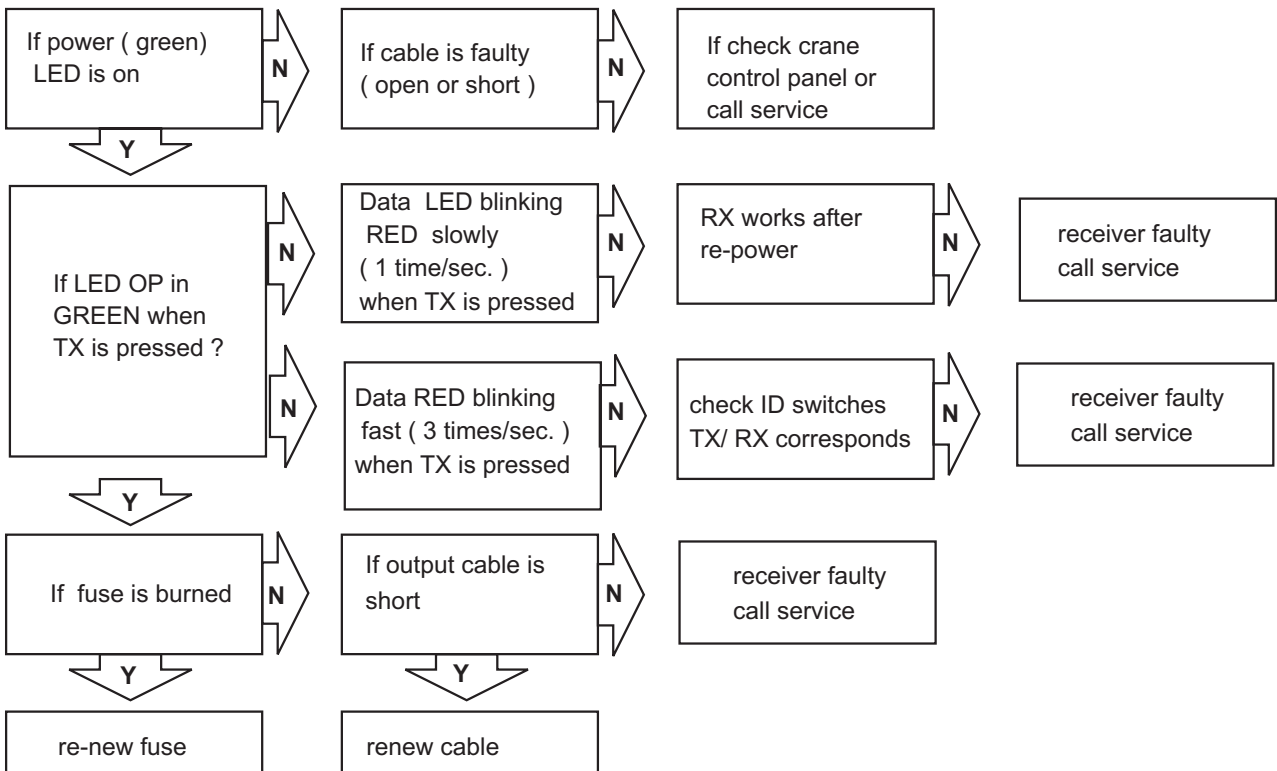


TX\*: transmitter

## 6. TROUBLE SHOOTING- RX

Please make sure the following status before trouble shooting.

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



RX\*: receiver



**7. PARTS LIST**

TRANSMITTER	
part number	description
MTC	transmitter casing (incl. RED stop, rubber pushbuttons, battery case )
MED-20	encoder board( Mini 20 )
MED-30	encoder board( Mini 30 )
MED-40	encoder board( Mini 40 )
MSB	Nylon belt for transmitter
P01-M	Transmitter protection sleeve

RECEIVER	
part number	description
BOX1.1	receiver housing incl. cable gland
MDD-20-A	decoder board ( Mini 20 )
MDD-30-A	decoder board ( Mini 30 )
MDD-40-A	decoder board ( Mini 40 )
RFP	HF receiver frequency board
CAP16	cable 16 X 0.75mm <sup>2</sup> x 1.8 M

**8. WIRING DIAGRAM**

# APOLLO *Mini*

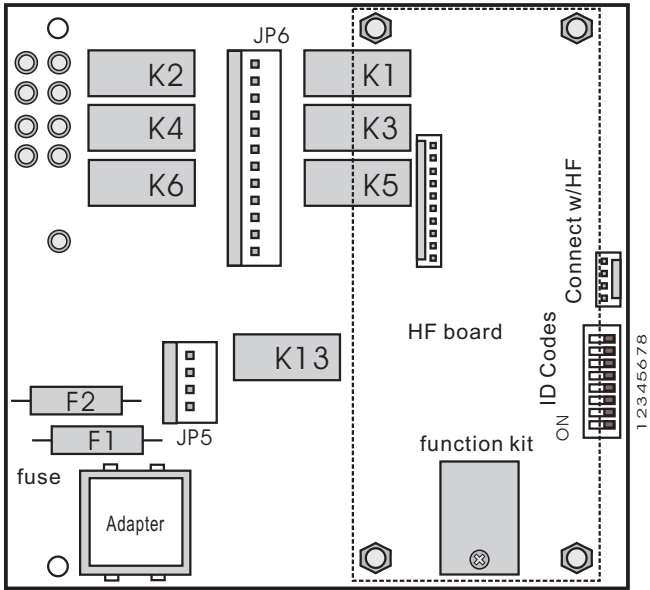
Standard circuit illustration.

- APOLLO mini 20C
- APOLLO mini 30C
- APOLLO mini 40C
- APOLLO mini 60C
  
- \_\_\_\_\_

(Special case we will attach circuit illustration.)

# APOLLO mini 20C Installation Wiring Diagram

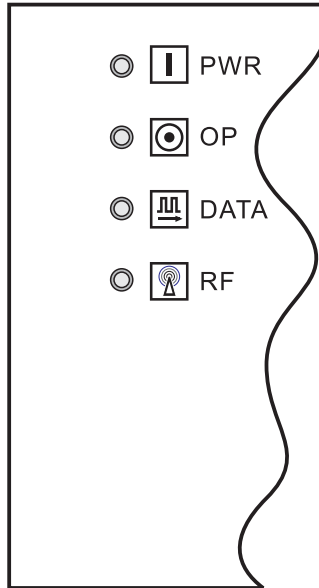
**Decoder & Relay Board (front side)**



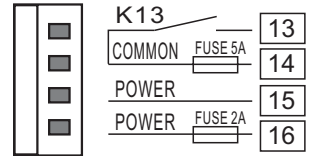
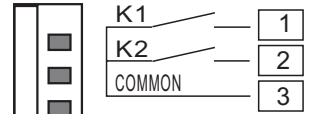
K13	Main
K1	A
K2	B

F1	2A Power Fuse
F2	5A Main Fuse

**Indicator**

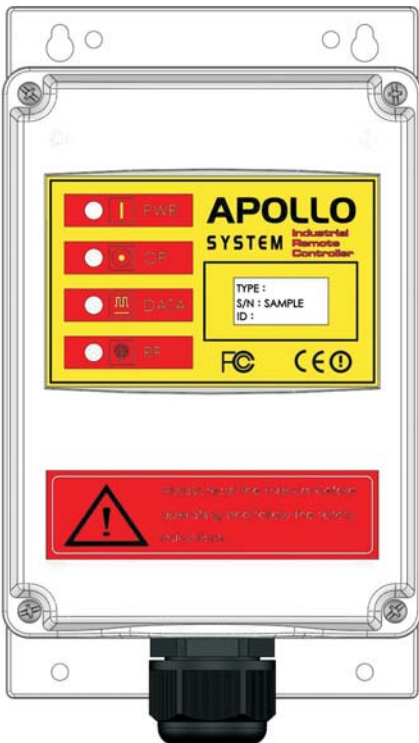


**Wires Location in Decoder & Relay Board**

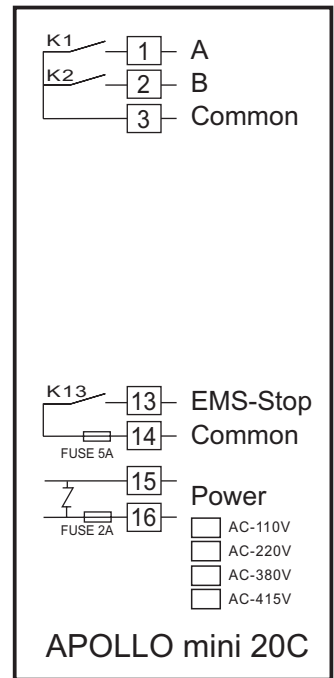
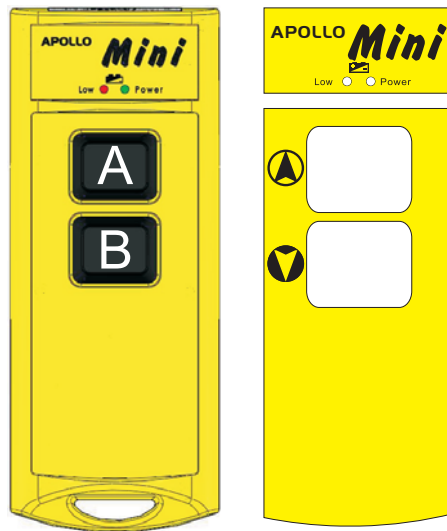


- AC-110V
- AC-220V
- AC-380V
- AC-415V

**Receiver**

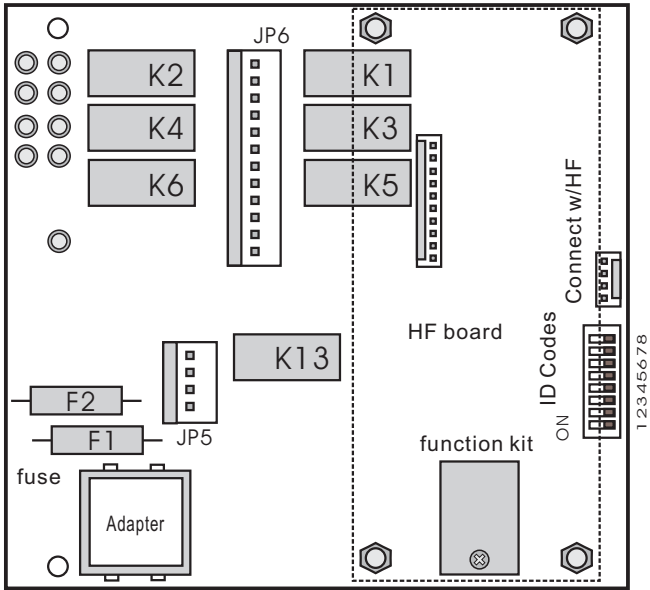


**Transmitter**



# APOLLO mini 30C Installation Wiring Diagram

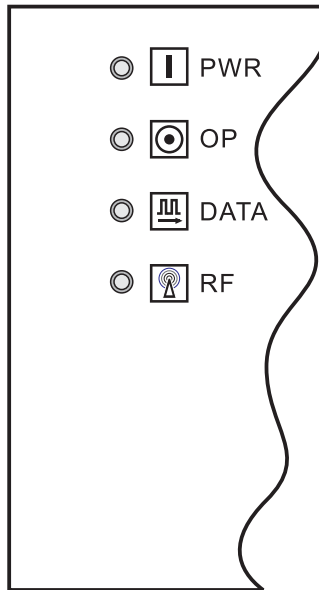
**Decoder & Relay Board (front side)**



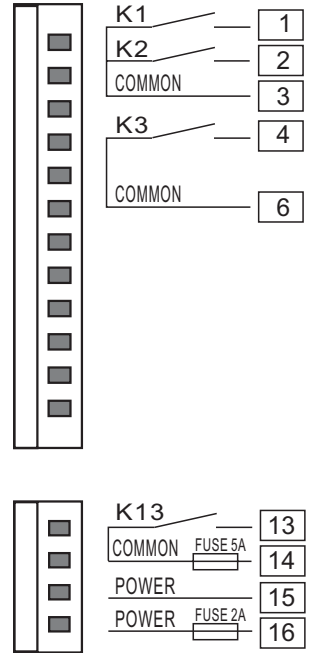
K13	Main
K1	A
K2	B
K3	C

F1	2A Power Fuse
F2	5A Main Fuse

**Indicator**

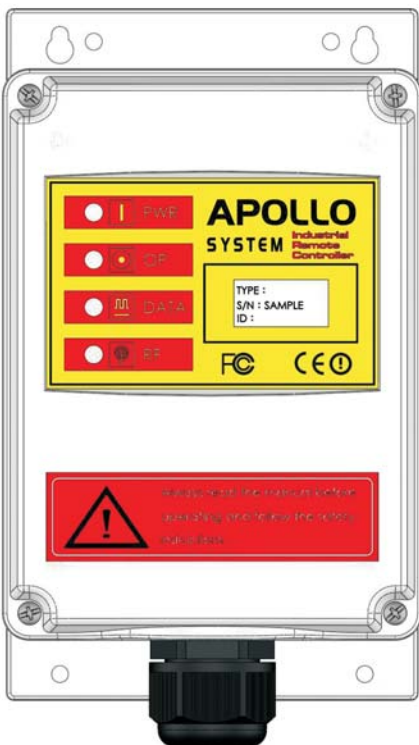


**Wires Location in Decoder & Relay Board**

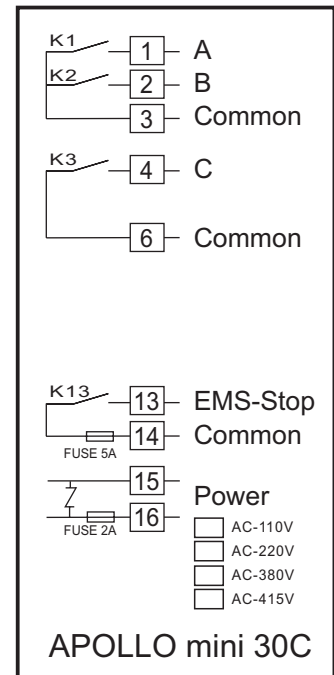
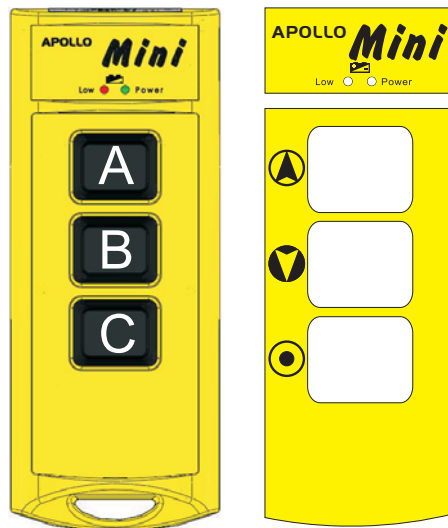


- AC-110V
- AC-220V
- AC-380V
- AC-415V

**Receiver**



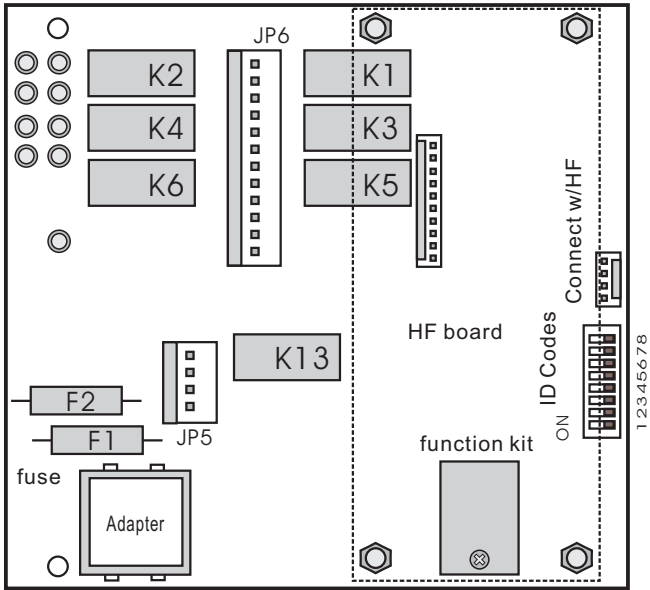
**Transmitter**



**APOLLO mini 30C**

# APOLLO mini 40C Installation Wiring Diagram

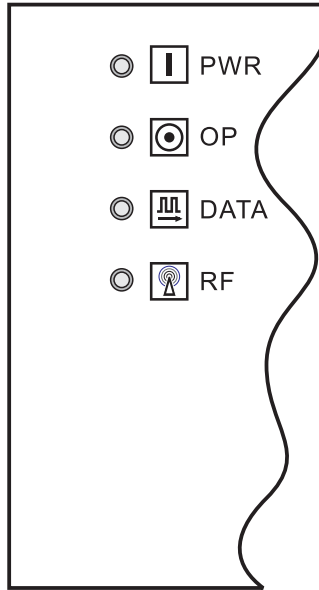
**Decoder & Relay Board (front side)**



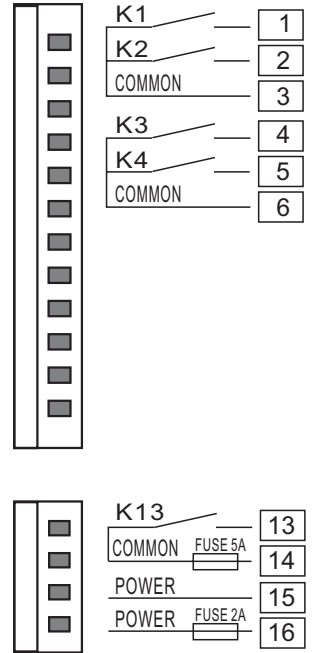
K13	Main
K1	A
K2	B
K3	C
K4	D

F1	2A Power Fuse
F2	5A Main Fuse

**Indicator**

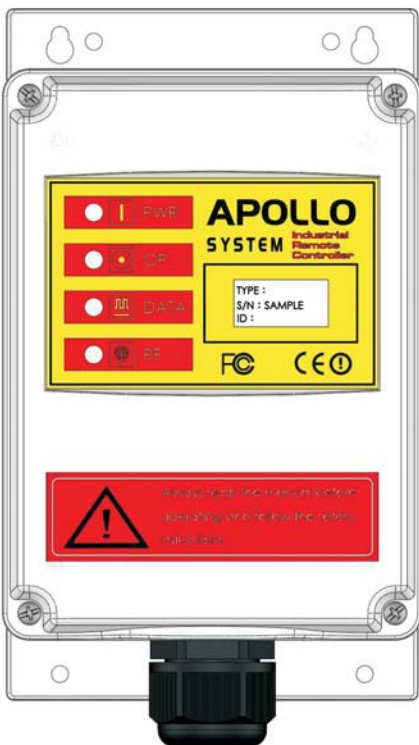


**Wires Location in Decoder & Relay Board**

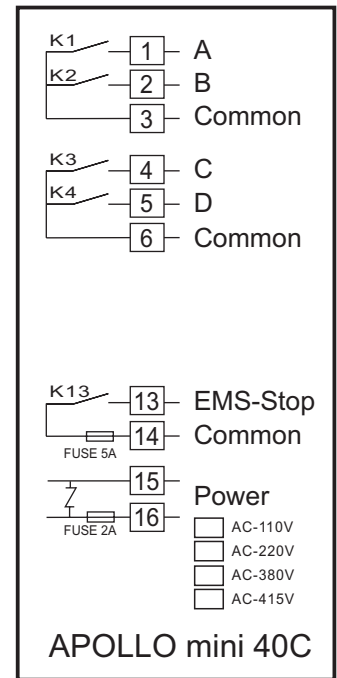
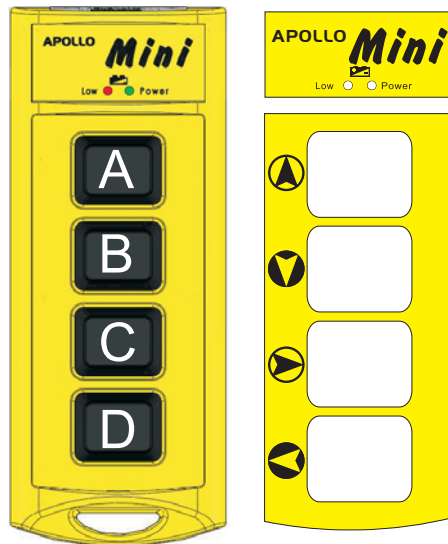


- AC-110V
- AC-220V
- AC-380V
- AC-415V

**Receiver**



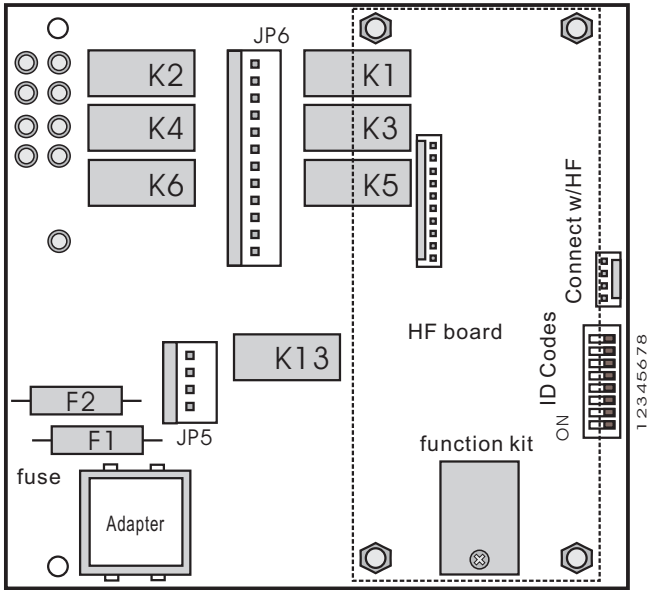
**Transmitter**



**APOLLO mini 40C**

# APOLLO mini 60C Installation Wiring Diagram

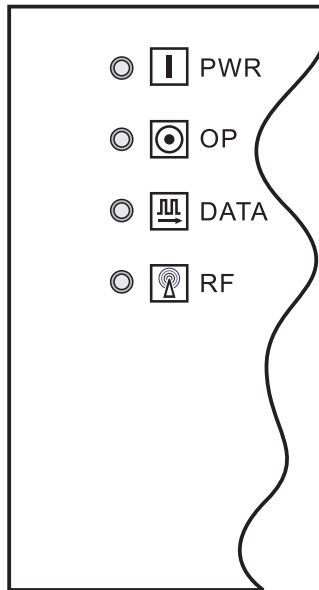
## Decoder & Relay Board (front side)



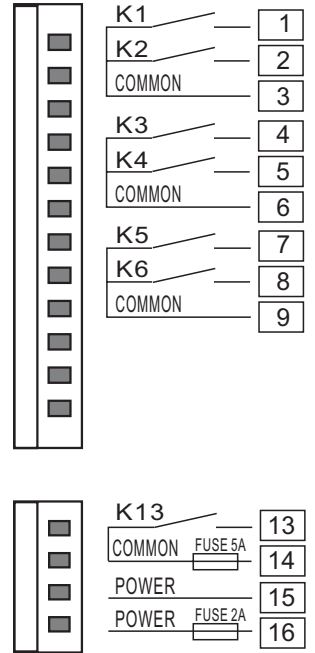
K13	Main
K1	A
K2	B
K3	C
K4	D
K5	E
K6	F

F1	2A Power Fuse
F2	5A Main Fuse

## Indicator

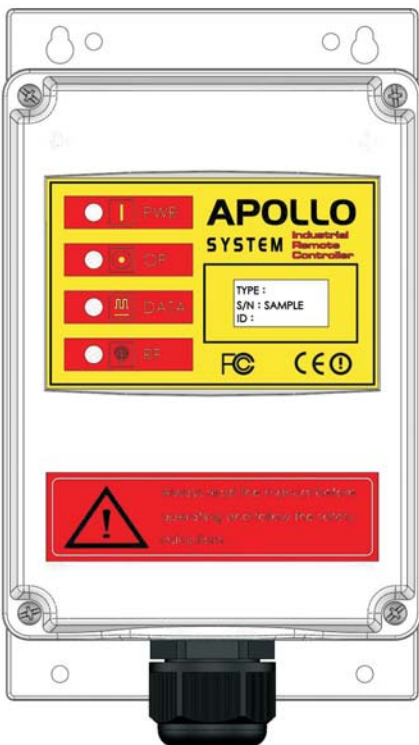


## Wires Location in Decoder & Relay Board

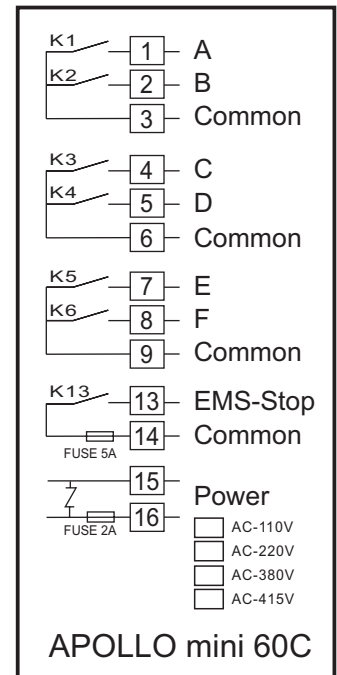
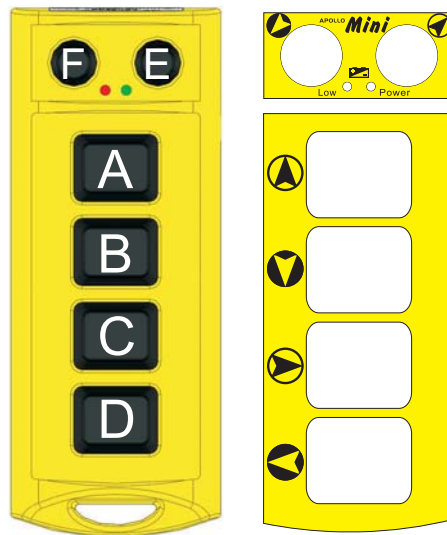


- AC-110V
- AC-220V
- AC-380V
- AC-415V

## Receiver



## Transmitter



**APOLLO mini 60C**

# 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 labour. 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.

*distributor*

### **STANDARD ACCESSORY**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> transmitter x 1 | <input type="checkbox"/> receiver x 1           | <input type="checkbox"/> handbook x 1                   |
| <input type="checkbox"/> screw x 4       | <input type="checkbox"/> transmitter sleeve x 2 | <input type="checkbox"/> Nylon belt for transmitter x 1 |

