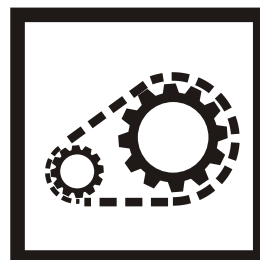
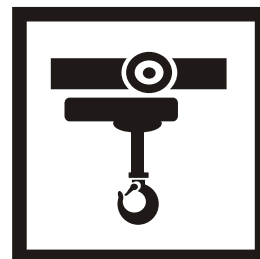


APOLLO *Mini*

RADIO REMOTE CONTROL

HANDBOOK

AC version



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

Dec 2007

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
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.....	10

1. INTRODUCTION

1.1 FEATURES:

1. Pocket-size transmitter, light ,more handy for operation.
2. ABS +PC transmitter housing, water/shock/dust proof.
3. Transmitter 2-4 functions equipped with a push type emergency STOP button .
4. Receiver with 4-LED, quick, simple judgement for operation status & after services.

2. MODELS

MINI 20C	1 step, (2) buttons
MINI30C	1 step, (3) buttons
MINI 40C	1step, (4) buttons

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

3. TRANSMITTER

3.1 TECHNICAL DATA:

Operation distance: 100M (open space)
 Frequency : FM 412~437Mhz for FCC/ 433Mhz for CE
 Output power : < 10mW
 Response time: 100mS
 Antenna: internal type
 Temperature: 0°C~+70°C
 Source supply:1.5V(AA)*2pcs or rechargeable nickel battery
 Enclosure: IP65
 Material: Industrial ABS + PC
 Address code : 256 sets
 Weight : 95 g (excluding batteries)
 Size: 124x48x25mm



3.2 INDICATOR:

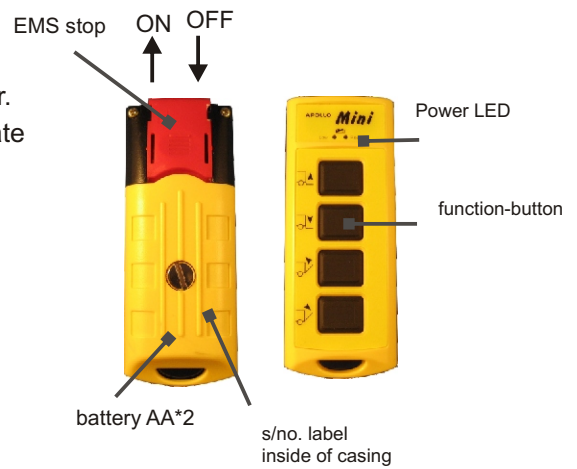
stand-by (power on)	RED/GREEN both indicators are NOT lighting (EMS ON)
operation	GREEN indicator light blinking
power low	RED indicator light blinking (when button pressed)
power off	Indicator lights off (EMS OFF)

3.3 POWER-ON STEPS:

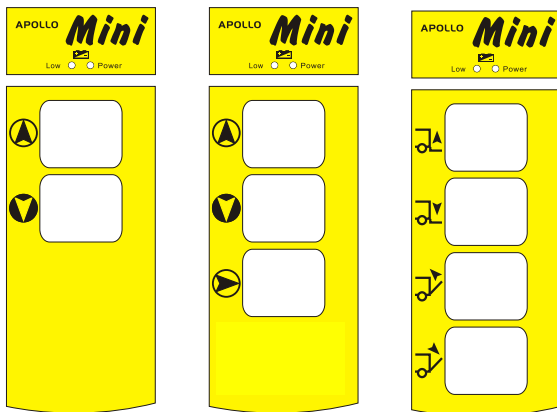
- (1) Power on receiver.
- (2) PUSH up the RED stop button to power on the transmitter.
- (3) Press any button and release, now MINI is ready to operate (now receiver power LED lights GREEN)

3.4 POWER-OFF STEPS :

- (1) Push down the RED stop button .



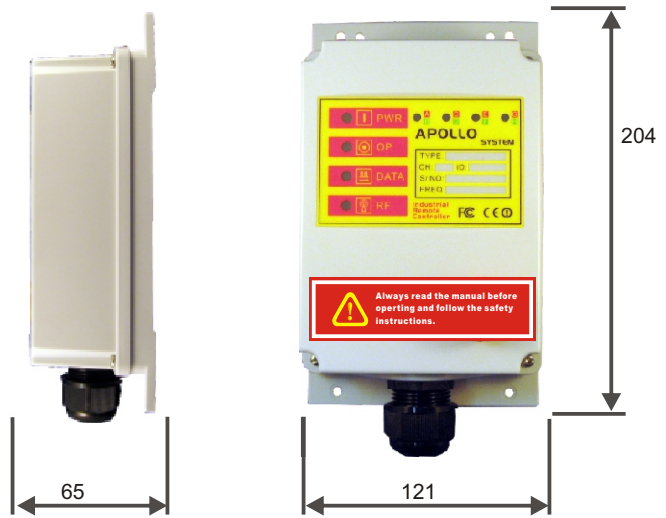
CAUTION: Please take out the batteries if long term period NOT operation.



4. RECEIVER

4.1 TECHNICAL DATA:

Frequency : 412~437Mhz for FCC/ 433Mhz for CE
 Sensitivity of RF:-110dBm
 Antenna : internal type
 Operation Temperature : -10°C~+75°C
 Source Voltage: 9-30V DC
 Enclosure: IP65
 Consumption: <12W
 Security Code: 256sets
 Weight: 270g (excluding cable)
 protection: short protection
 Color: Grey



BOX 1.2

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> OFF lighting when TX* is pressed (in operation), RED when button released RED light blinking fastly when ID codes incorrect.
	<u>Frequency LIGHT</u> RED lighting when TX pressed (in operation) Light OFF when button released (without operation) RED light blinking irregularly when interference incurred

TX*: transmitter

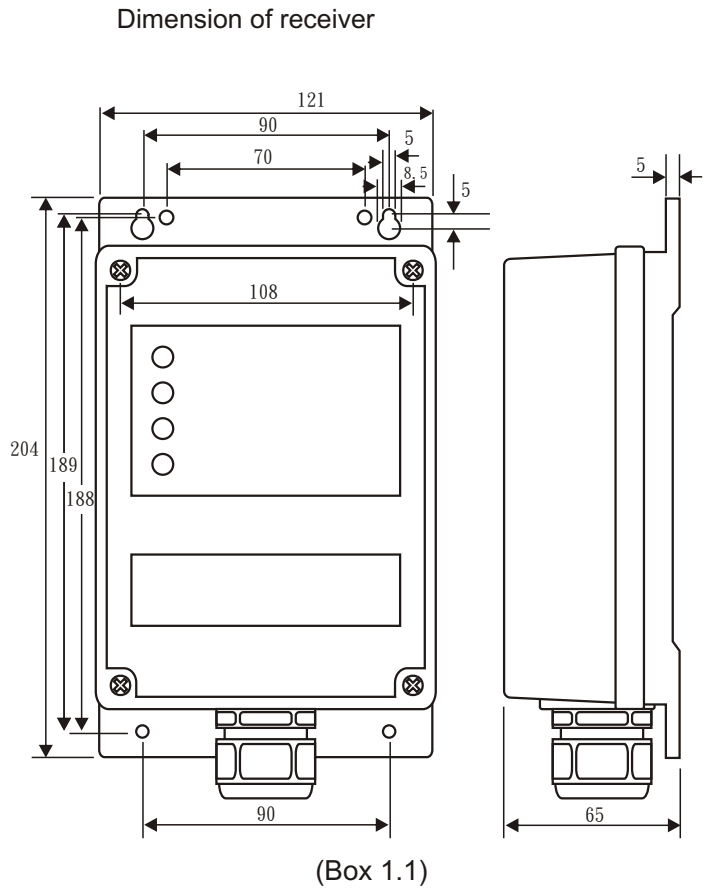


S/No. ID LABEL:

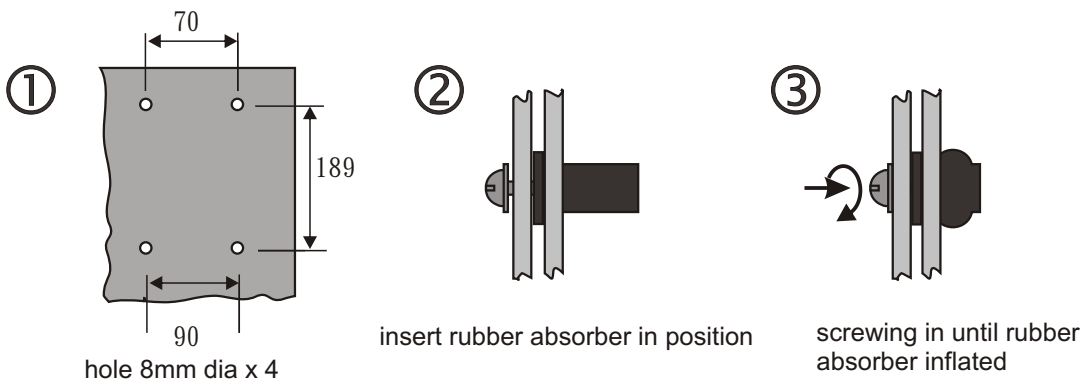
Each MINI unit has its own s/no. ID label which defines the device's type, ID, service number (S/No.), and channel. For any inquiry please advise your supplier the S/NO. for a faster service.

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



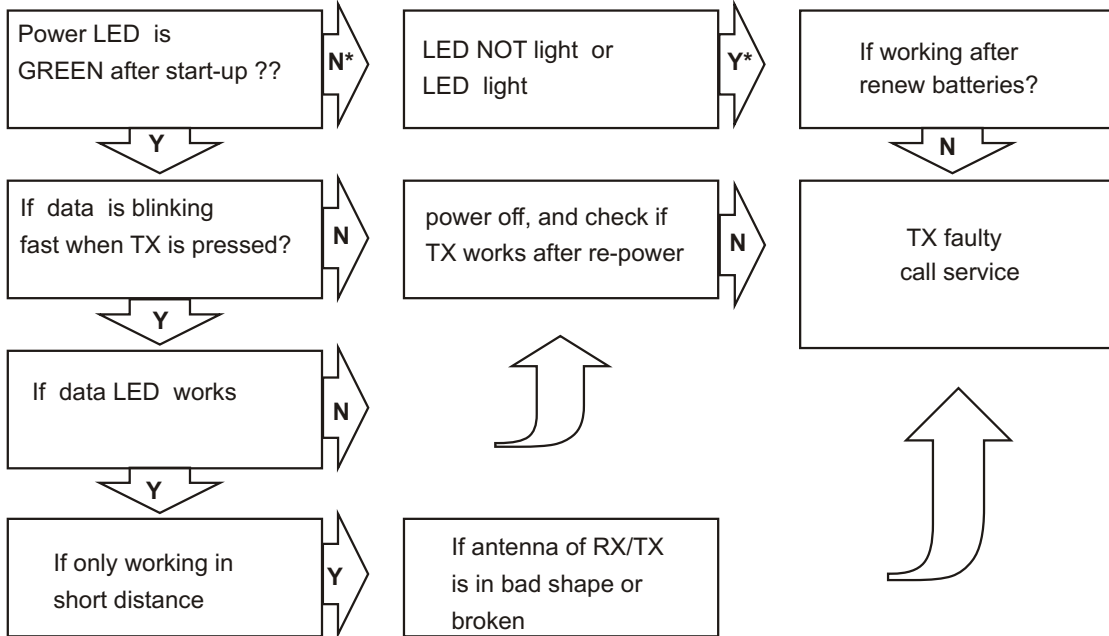
4.4 RECEIVER INSTALLATION ILLUSTRATION :



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

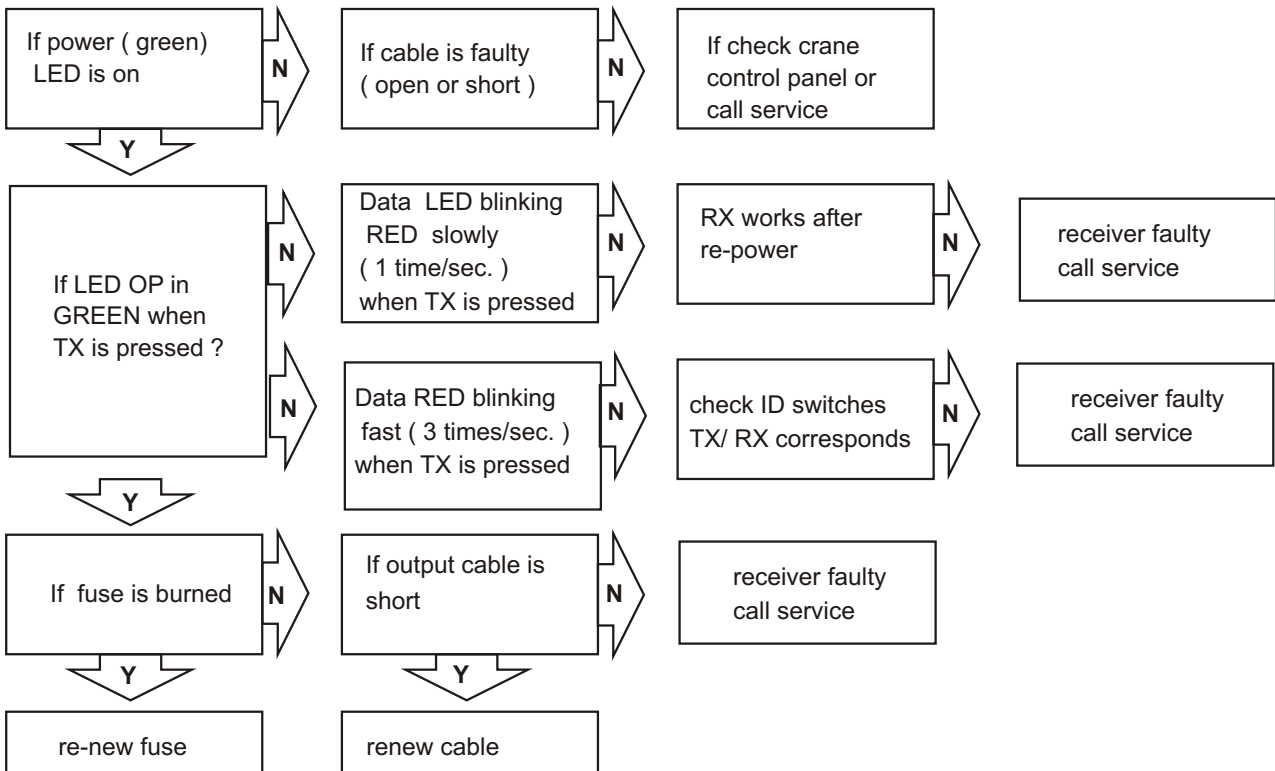


TX*: transmitter

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

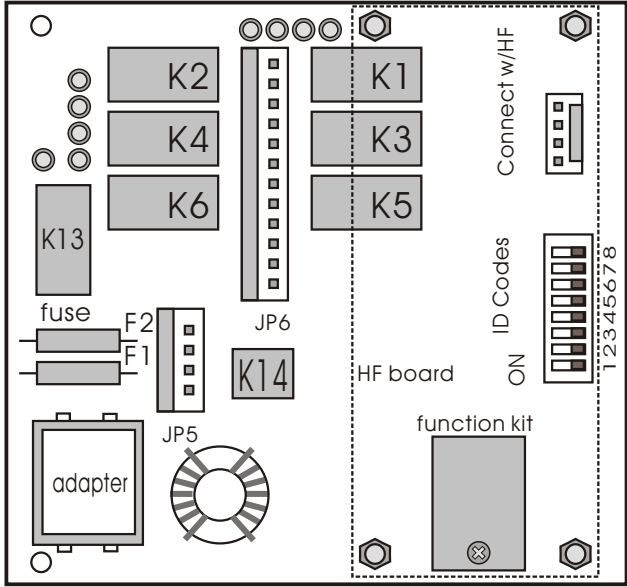
TRANSMITTER	
part number	description
MTC	transmitter casing (incl. RED stop, rubber pushbuttons, battery case)
MED-20	encoder board(Mini 20)
MED- 40	encoder board(Mini 40)
MPS	protection sleeve
MWS	wrist strap

RECEIVER	
part number	description
BOX1.2	receiver housing incl. cable gland
MDD-20	decoder board (Mini 20)
MDD-40	decoder board(Mini 40)
RFP	receiver frequency part
CAP08	cable 8c X 0.75mm ² x 1.8 M

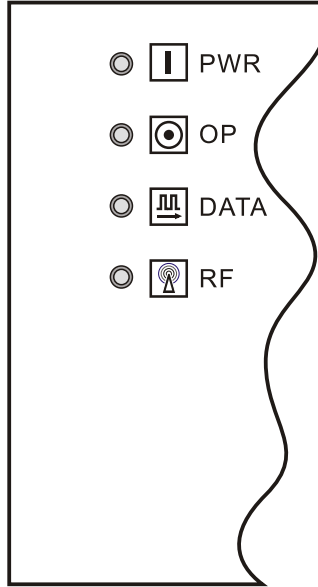
8. WIRING DIAGRAM

APOLLO mini 20C Installation Wiring Diagram

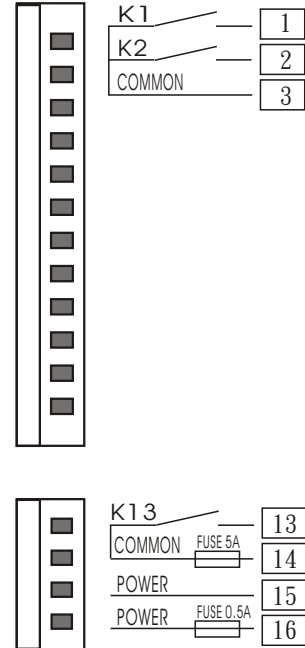
Decoder & Relay Board (front side)



Indicator



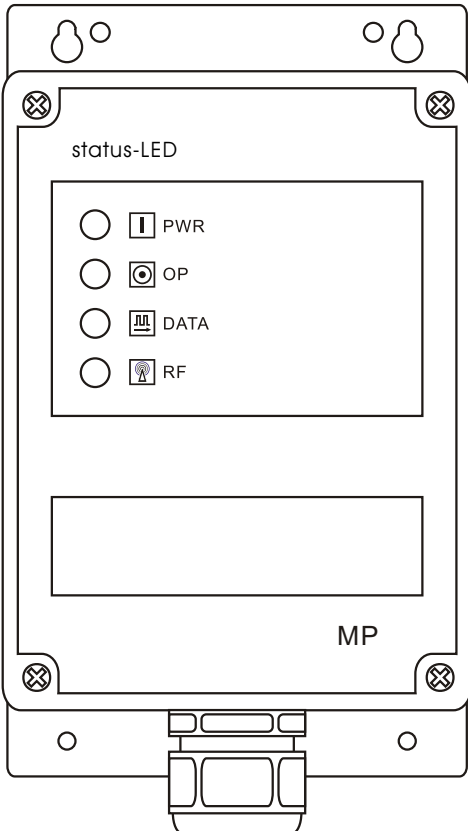
Wires Location in Decoder & Relay Board



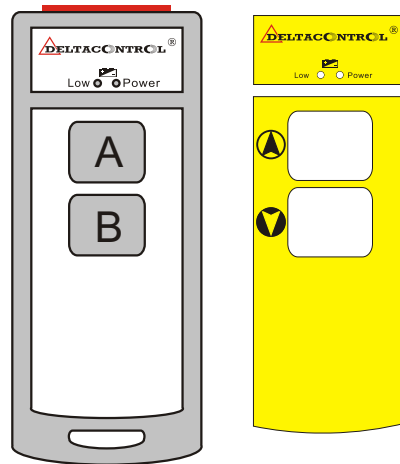
F1 0.5A Power Fuse
F2 5A Main Fuse

- AC-110V
- AC-220V
- AC-380V
- AC-48V
- AC-24V

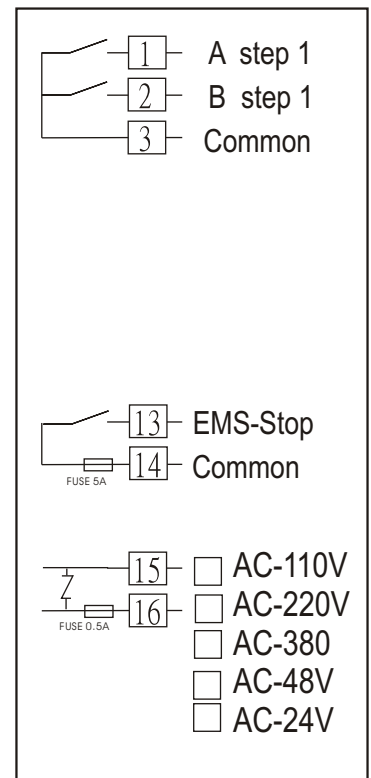
receiver



K13 Main(stop)
K14 CPU
K1 1ST step in A
K2 1ST step in B



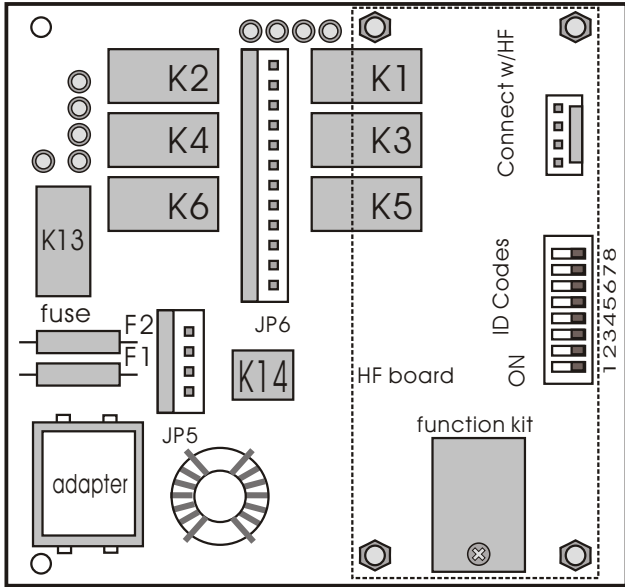
transmitter



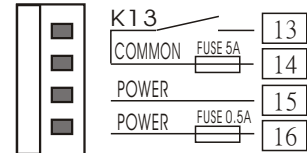
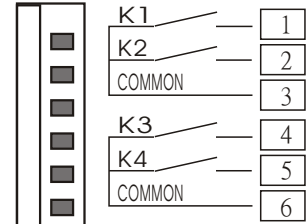
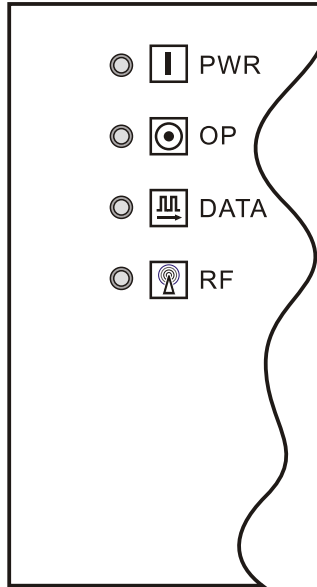
APOLLO mini 40C Installation Wiring Diagram

Wires Location in Decoder & Relay Board

Decoder & Relay Board
(front side)



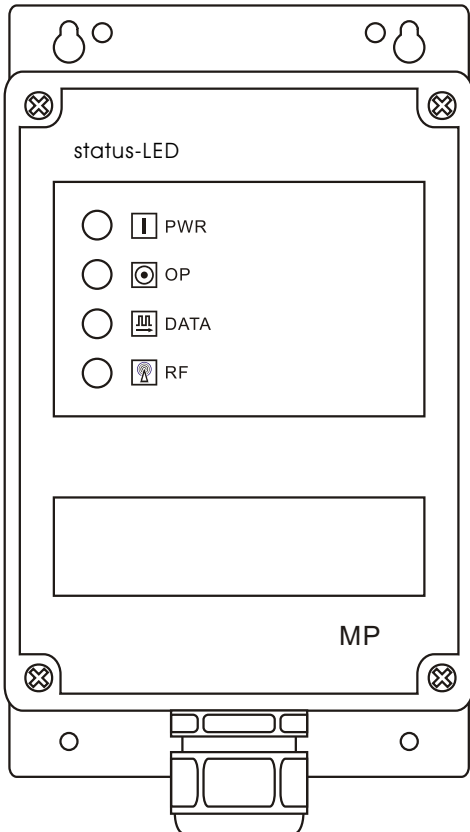
Indicator



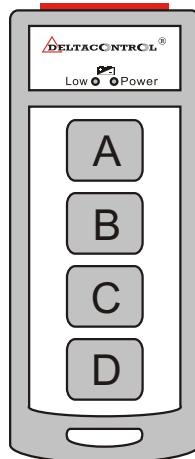
F1 0.5A Power Fuse
F2 5A Main Fuse

- AC-110V
- AC-220V
- AC-380V
- AC-48V
- AC-24V

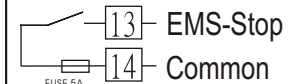
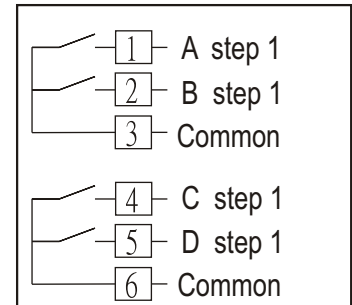
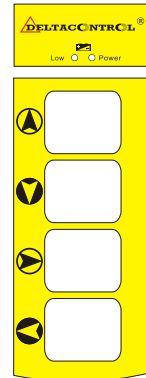
receiver



K13 Main(stop)
K14 CPU
K1 1ST step in A
K2 1ST step in B
K3 1ST step in C
K4 1ST step in D



transmitter



- AC-110V
- AC-220V
- AC-380V
- AC-48V
- AC-24V

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.

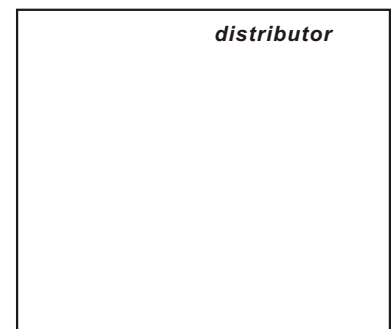
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions

(1)•This device may not cause harmful interference and

(2)•This device must 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.



STANDARD ACCESSORY

- transmitter x 1
- receiver x 1
- handbook x 1
- screw x 4
- transmitter sleeve x 2

