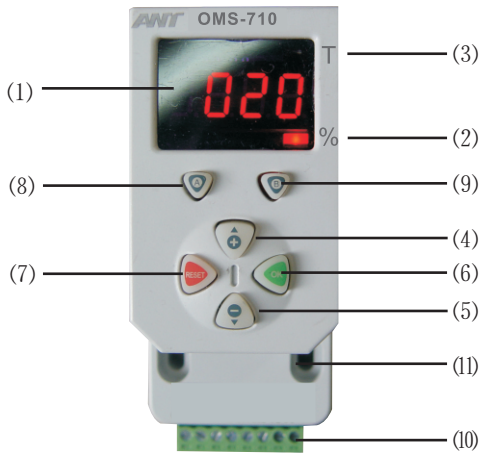
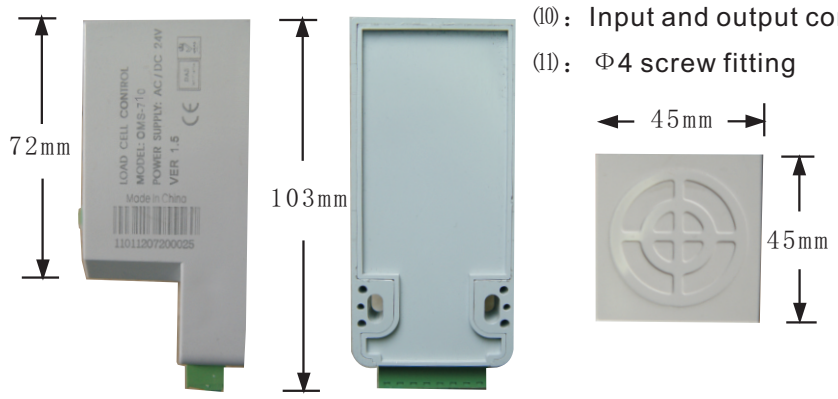
OMS-710 Elevator overload measurement system

User's Manual

1. Appearance and installation dimensions of the main controller



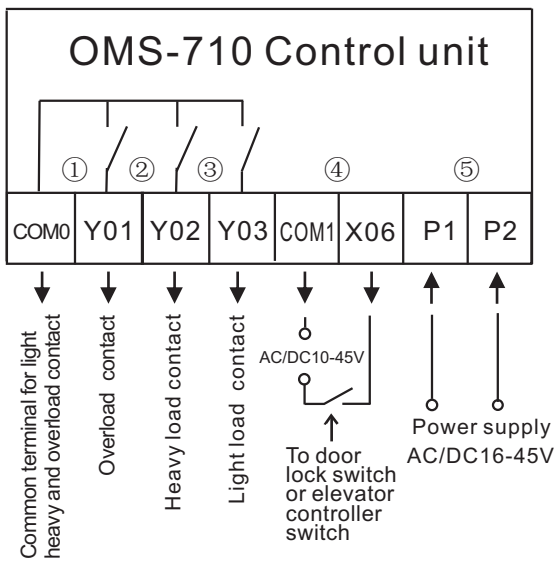
(1)：Display window
(2)：Display in percentage
(3)：Display in weight
(4)：Up key;
Prolonged press to speed up
(5)：Down key;
Prolonged press to speed up
(6)：Confirm
(7)：Exit
(8)：No load learning
(9)：Rated load learning
(10)：Input and output contacts
(11)：Φ4 screw fitting



Ningbo ANT Electronic CO.,LTD
Tel: +86-0574-87164091
Fax: +86-0574-87150953
Web: www.ant-china.com
Email: sales@ant-china.com

Version： V1.8

2. Interfaces of the main controller



NOTES:

①：Acts when measured weight≥rated load×(1+P01%);
②：Acts when rated load×P08%≤measured weight≤rated load×(1+P01%);
③：Acts when 0%≤measured weight ≤rated load×P07%;
④：If X06 lock signal is effective, the relay output keeps the same even if the load changes;
X06 signal is enabled or not based on the setting of parameter P3;
Input voltage :AC/DC10V~45V ;(No connection if no special requirements.)
⑤：Please make sure the working voltage is AC/DC16V-45V before normal operation;

3. The menu structure and parameter setting

Parameter	Meanings	Parameter range	Default value
P01.	Overload range Setting;	00~20 – Indicates 0~20%, overload relay acts when measuring load exceeds (1+P01%) rated load;	10
P02.	Bouncing sensitivity setting;	00~10 – The sensitivity decreases with the value of P02 increasing;	05
P03.	Output lock signal setting;	00 – Signal lock is effective when power on; 01– Signal lock is effective when power off;	00
P04.	Delay time setting for overload relay release;	00~05 – Indicates 0~5 seconds;	02
P05.	Mode setting for rated load learning;	00 – Learning with full weight load; 03 – Learning with no weight load; 04 – Learning with any known weight load;	00
P06.	Spare		00
P07.	Light load range setting;	05~75 – Indicate 5~75%, light load relay acts when measuring load is in range of 0% to P07% rated load;	05
P08.	Heavy load range setting;	90~99 – Indicate 90~99%, heavy load relay acts when load is in range of P08% to (1+P01%) rated load;	90
P09.	Light load contact setting;	00 – Contact closes when in light load range; 01– Contact releases when in light load range;	00

Parameter	Meanings	Parameter range	Default value
P10.	Heavy load contact setting;	00– Contact closes, releases on overload ; 01– Contact releases, closes on overload ; 10– Contact closes, no change on overload ; 11– Contact releases, no change on overload ;	10
P11.	Spare		01
P12.	Sensor`s correction code or any known weight;	0000~9500 – Input correction code during rate load learning with no load or input weight during rated load learning with known weight in KG ;	0000
P13.	Rated load value setting ;	0000~9500 – Input rated load in KG; In rated load learning with full weight, 0000 can be used to treat the full weight as rated load;	0000
P14.	Spare		01
P15.	Spare		00
P16.	Spare		50
P17.	Spare		10
P18.	Overload contact setting;	00 – Contact releases when in overload range; 01– Contact close when in overload range;	00
P19.	Version		

4. The display codes and their meanings

Codes	Explanation	States
CC.00	Twinkle for code entrance;	Code entrance
----.	Twinkle for initialization;	Initialization state
P08.	Parameter setting;	Initialization state
01.	Value of Pn (n = 01-19）;	Initialization state
1080	Weight: 1080 kilogram;	Measuring state
101	Percentage display of 101%;	Measuring state
LF	Overload;	Measuring state
PL.	Ready for no load learning;	Initialization state
00.	No load learning complete;	Initialization state
PH.	Ready for rated load learning;	Initialization state
100.	Rated load learning complete;	Initialization state
E0	Error code;	Initialization state

5. Common trouble code and countermeasure to the trouble

Codes	Phenomena/explanation	Countermeasure
E0	Sensor not installed properly, wiring wrong, or used weight too light during initialization;	Check for installation or wiring error; use heavier weight on rated load learning;
E1	No no load learning performed during initialization process;	Perform no load learning before rated load learning process;
E2	Mistake with front and back side of magnet;	Ajust front and back side, make the front side be directed at the sensor;
E6	The shift position is too near;	The distance between the controller and the magnet is too near;
E7	The shift position is too far;	The distance between the controller and the magnet is too far;

6. Procedures for device initialization

This system provides 2 initialization methods:

Initialization with full weight load: if there is enough weight on site and high measurement precision required.

Initialization with any known weight load: if there is not enough weight on site and high measurement precision required.

According to on site situation, one of the following procedures can be used for Initialization, and following examples may be referred to accordingly.

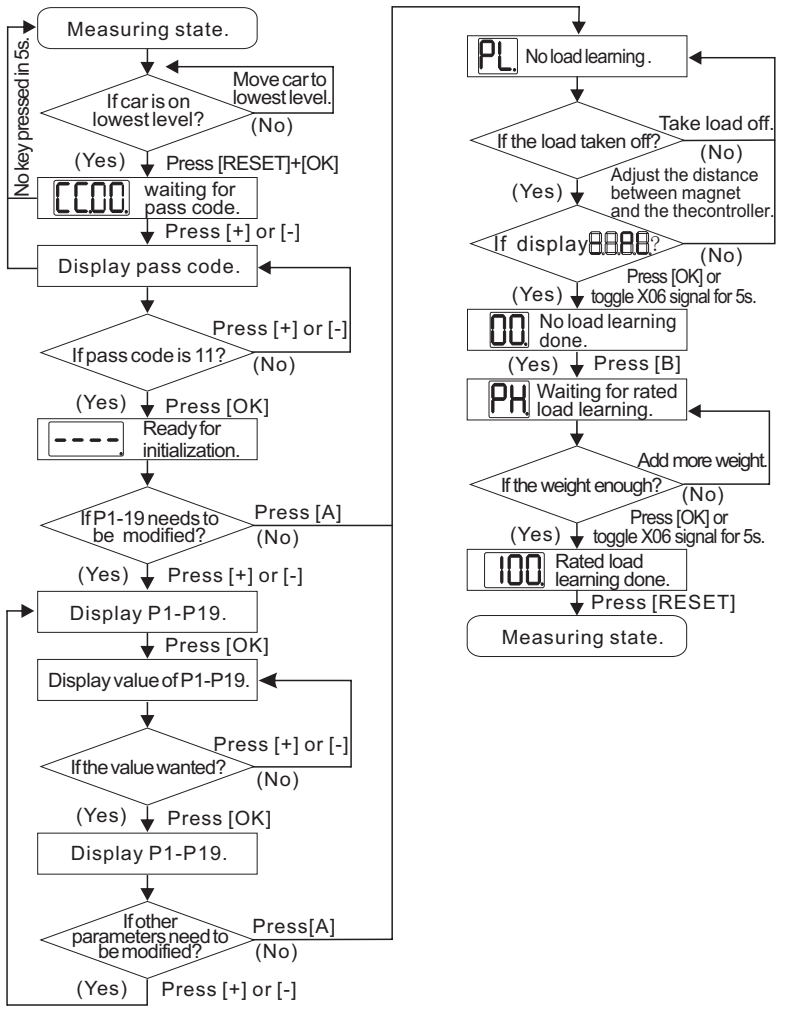
- ★***Initialization with full weight load***
- ★***Initialization with any known weight load***

Other fast modification:

- ■***Hotkey for prompt tare clearing***
- ■***Fast data modification***
- ■***Fast parameter modification***
- ■***Reset to factory setting***

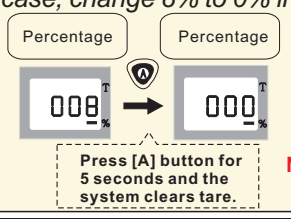
ELEVATOR OVERLOAD MEASUREMENT SYSTEM

7. Flow chart for device initialization



■Hotkey for prompt tare clearing

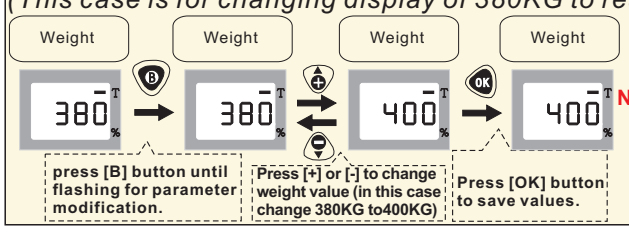
(In this case, change 8% to 0% in empty load)



NOTE: before clearing tare, please make sure that the equipment has no load, good for both percentage and weight displays.

■Fast data modification

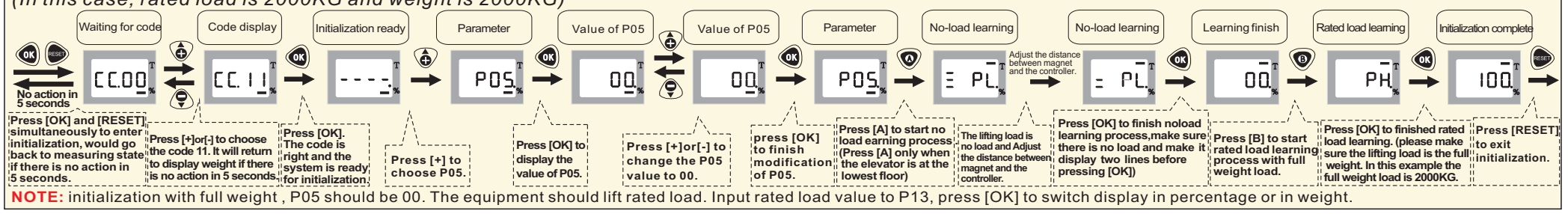
(This case is for changing display of 380KG to real display of 400KG)



NOTE: before fast data modification, please make sure the real load weight, good for both percentage and weight.

★Initialization with full weight rated load

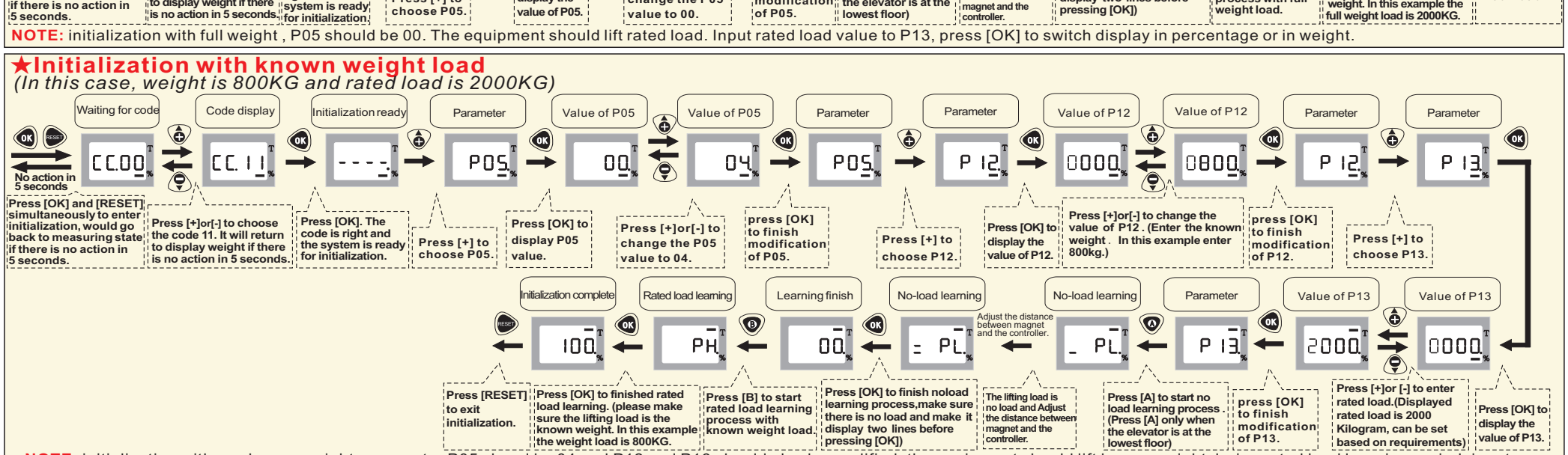
(In this case, rated load is 2000KG and weight is 2000KG)



NOTE: initialization with full weight , P05 should be 00. The equipment should lift rated load. Input rated load value to P13, press [OK] to switch display in percentage or in weight.

★Initialization with known weight load

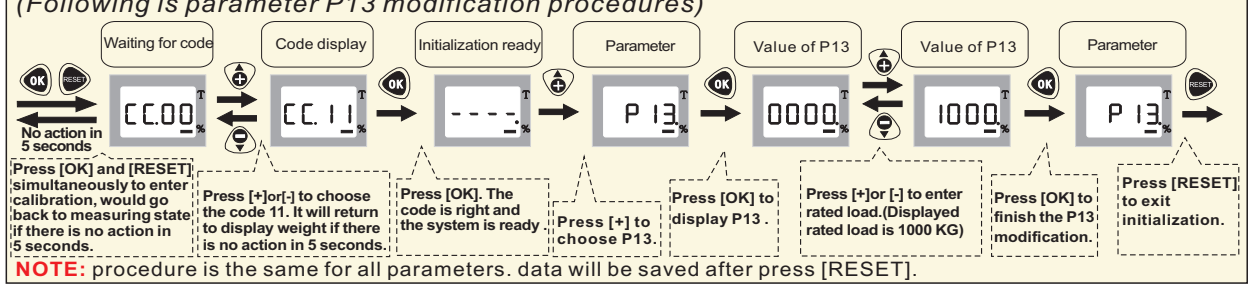
(In this case, weight is 800KG and rated load is 2000KG)



NOTE: initialization with any known weight, parameter P05 shoud be 04 and P12 and P13 should also be modified. the equipment should lift known weight during rated load learning period. input rated load value to P13. Press [OK] to switch display in percentage or in weight.

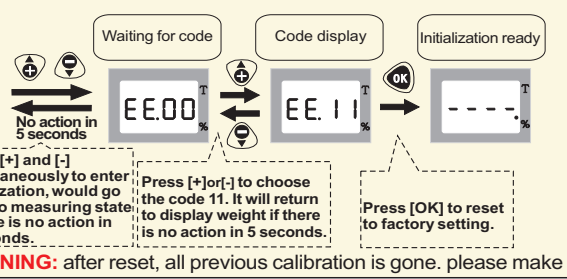
■Fast parameter modification

(Following is parameter P13 modification procedures)



NOTE: procedure is the same for all parameters. data will be saved after press [RESET].

■Reset to factory setting



WARNING: after reset, all previous calibration is gone. please make sure before resetting.