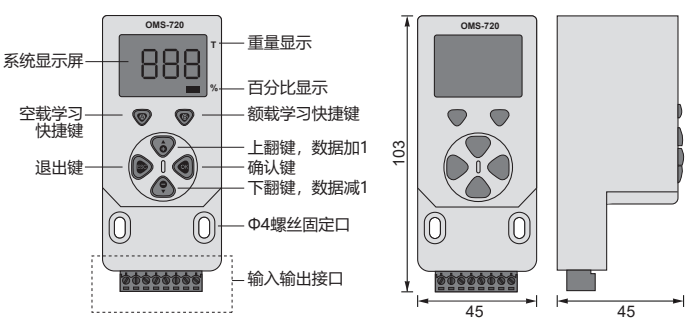
ANT ELECTRONIC

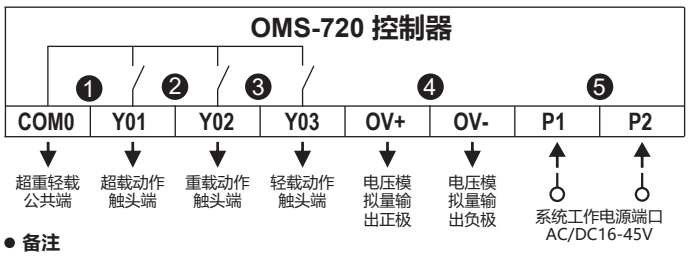
OMS-720 电梯载荷测量装置
安装使用说明书(VER 1.9)

宁波市艾特电子有限公司

主控制器外形简介



主控制器接口简介



● **备注**

❶ 测定重量达到或超过设定的极限重量时继电器动作：测定重量＞(1+P01%)×额定重量。

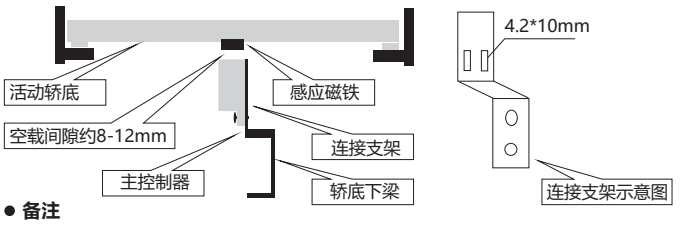
❷ 测定重量达到或超过设定重量范围内时继电器动作：额定重量×P08%≤测定重量≤额定重量×(1+P01%)。

❸ 测定重量达到或超过设定的重量范围内时继电器动作：0%≤测定重量≤额定重量×P07%。

❹ 此端口功能为：随着载荷发生变化而输出-10V到+10V或0V到+10V线性变化电压，P06参数可修改输出范围。

❺ 系统正常运行前请务必确认工作电源电压是否在AC/DC16-45V范围内。

安装示意图（仅供参考）



● **备注**

感应磁铁有标识的一面应正对主控制器感应处；本磁铁为特制的稀土磁铁，磁性强劲，安装过程中必须小心；任何时候都要避免靠近100℃以上的高温以免退磁而降低称量的精确度。

菜单结构、参数设置说明

参数名称	参数功能	参数数值范围及含义	默认值
P01	超载百分量设定	(00-20)→表示0-20%，当测定重量＞(1+P01%)×额定重量时，超载继电器动作；	10
P02	设备起动瞬间去抖动设定	(00-10)→增大数值可降低超载动作灵敏度；	05
P03	备用		00
P04	超载动作保持时间设定	(00-05)→表示0-5秒，增大数值为延长超载继电器动作后释放的时间；	02
P05	自学习调试模式选择	00→全额载重自学习； 04→已知任意重量载重自学习；	00
P06	电压模拟量输出范围设定	00→电压模拟量输出-10V到+10V； 01→电压模拟量输出0V到+10V；	00
P07	轻载百分量范围设定	(05-75)→表示05-75%，当0%≤测定重量≤P07%×额定重量时，轻载继电器动作；	05
P08	重载百分量范围设定	(90-99)→表示90-99%，当P08%×额定重量≤测定重量≤(1+P01%)×额定重量时，重载继电器动作；	90
P09	轻载动作方式设定	00→轻载范围内继电器信号导通； 01→轻载范围内继电器信号断开；	00
P10	重载动作方式设定	00→重载范围内继电器信号导通，达到超载后信号断开； 01→重载范围内继电器信号断开，达到超载后信号导通； 10→重载范围内继电器信号导通，超载后信号保持导通； 11→重载范围内继电器信号断开，超载后信号保持断开；	10

菜单结构、参数设置说明

P01	备用		01
P02	已知任意重量调试方式下已知重量的设定	(0000-9500)→表示在已知任意重量调试模式下输入已知砝码重量的数值；	0000
P03	设备所需额定载荷重量设定	(0000-9500)→表示0-9500公斤，输入不为0的额定载荷数值后，本系统可进行公斤显示；	0000
P04	备用		01
P05	备用		00
P06	备用		50
P07	备用		10
P08	超载动作方式设定	00→超载后继电器信号断开； 01→超载后继电器信号导通；	00
P09	版本号		

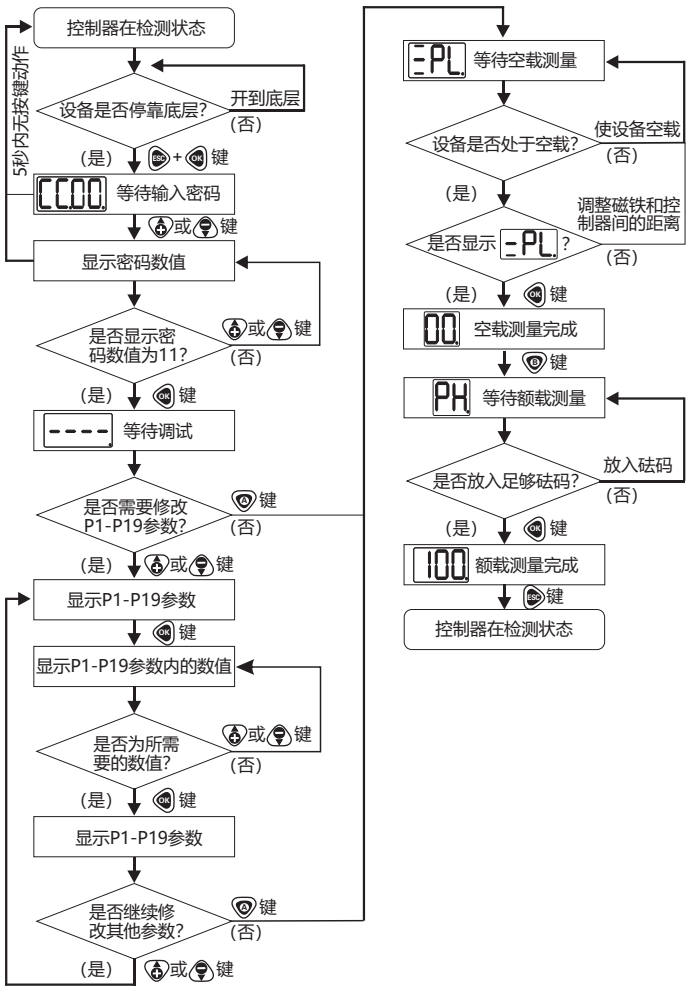
主控制器代码及功能

显示代码	代码说明	运行状态
C00	等待密码输入	输入密码状态
----	等待调试	调试状态
P08	参数选项	调试状态
001	显示为Pn(n=1-19)参数内的数值	调试状态
1080	显示为1080公斤重量	运行状态
101	显示为额定载荷的101%	运行状态
OVE	超载指示	运行状态
-PL	等待空载自学习	调试状态
00	空载自学习完成	调试状态
PH	等待额载自学习	调试状态
100	额载自学习完成	调试状态
E00	错误代码指示	调试状态

常见故障代码及故障解决

故障代码	故障原因	解决对策
E00	自学习调试期间测量的额载数据≤空载数据；	请检查传感器安装是否恰当，上电复位后起吊更重的砝码进行自学习调试；
E01	完成自学习调试前缺少对额载数据的测量；	按下[B]键后重新对额载的数据进行测量；
E02	磁铁正反面放置错误；	调整磁铁方向，使之有符合面正对朝向控制器接收端；
E08	磁铁与控制器之间的距离过近，超载系统极限范围；	调整磁铁与控制器之间的距离,使之在2-10mm范围内变化；
E09	磁铁与控制器之间的距离过远，超载系统极限范围；	调整磁铁与控制器之间的距离,使之在2-10mm范围内变化；

额定载重自学习调试流程图



额定载重自学习调试范例详解

本系统拥有两种额定载重自学习调试方式：

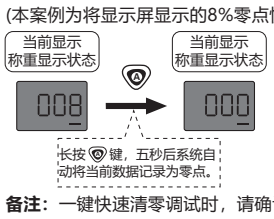
①全额载重自学习：现场有足够的砝码或重物，对精度要求很高的场合适用。

②已知任意重量载重自学习：现场没有足够的砝码或重物，对精度要求高的场合适用。

用户根据使用现场环境不同选择以下一种调试方式进行操作：

● **一键快速清零调试步骤范例**

(本案例为将显示屏显示的8%零点快速调整到0%的调试步骤)

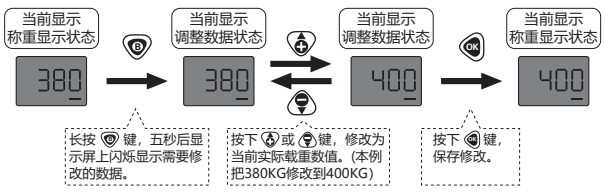


备注：一键快速清零调试时，请确认当前设备处于空载状态。

额定载重自学习调试范例详解

● **一键快速数据校正调试步骤范例**

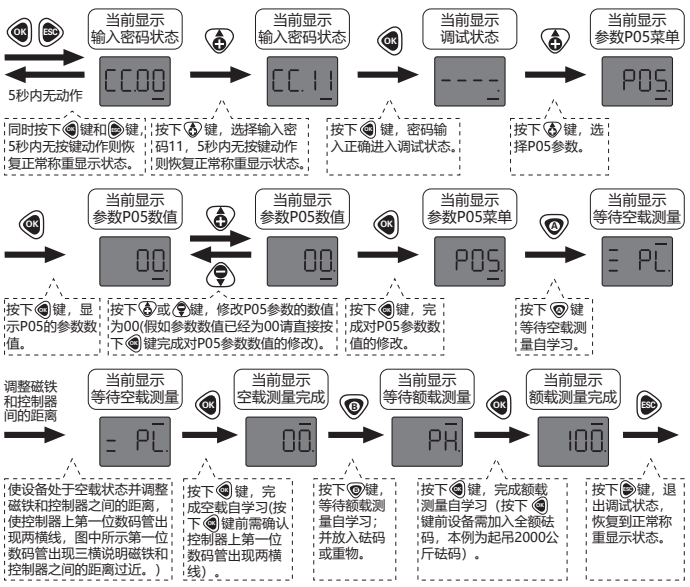
(本案例为将显示屏显示的380KG快速调整到400KG实际载重的步骤)



备注：一键快速数据校正调试时，请确认当前实际载重数值。

● **全额载重自学习调试步骤范例**

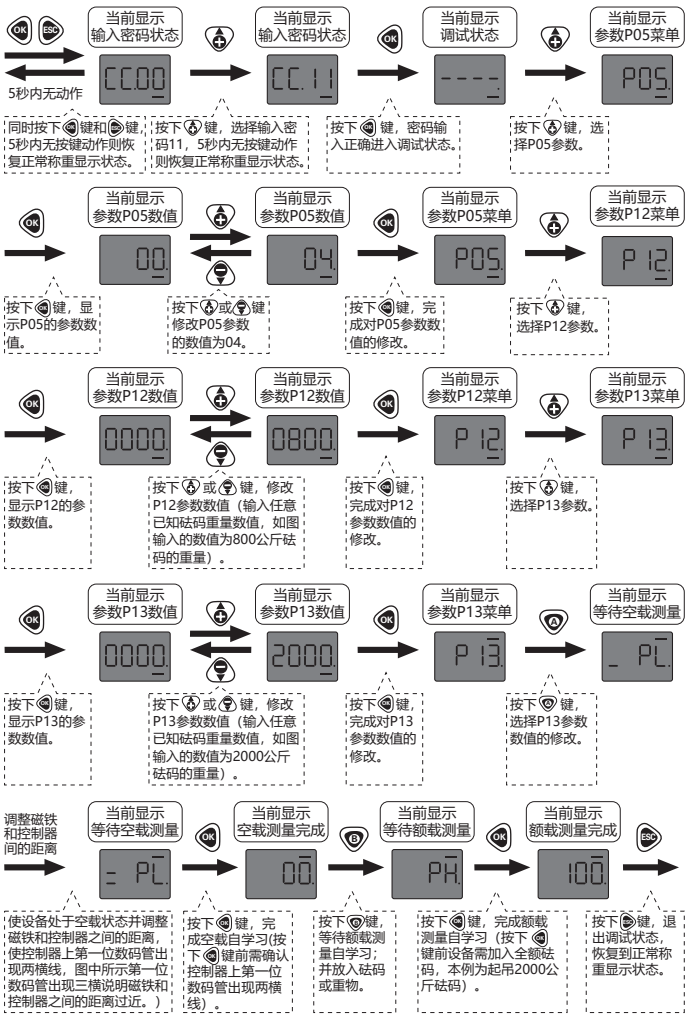
(本案例为利用2000KG砝码对额定载重为2000KG的设备进行自学习操作的步骤)



备注：全额载重自学习时，P05参数应设置为00，设备需要起吊额定载重的砝码或重物进行额载测量。当完成对P13参数数值的设置后，正常称重时按 可在重量和百分比之间切换显示。

● **全额载重自学习调试步骤范例**

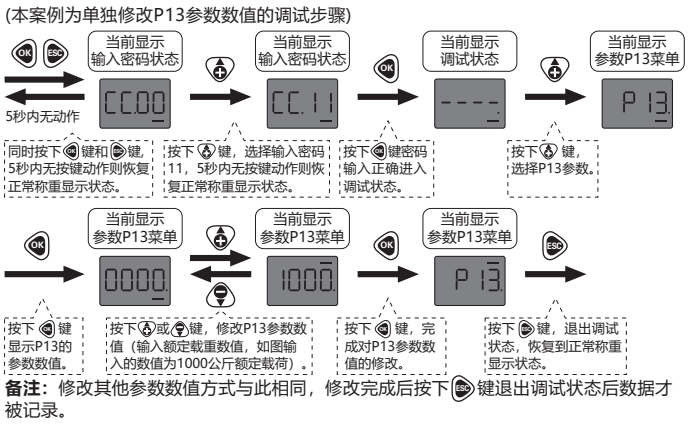
(本案例为利用2000KG砝码对额定载重为2000KG的设备进行自学习操作的步骤)



备注：全额载重自学习时，P05参数应设置为00，设备需要起吊额定载重的砝码或重物进行额载测量。当完成对P13参数数值的设置后，正常称重时按 可在重量和百分比之间切换显示。

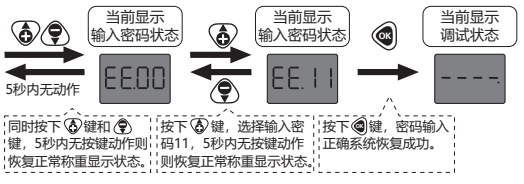
● **修改参数数值步骤范例**

(本案例为单独修改P13参数数值的调试步骤)



备注：修改其他参数数值方式与此相同，修改完成后按下 键退出调试状态后数据才被记录。

● **恢复出厂设置步骤范例**



警告！

当恢复出厂设置后，出厂后所有调试的数据将被清除，无法恢复，请谨慎使用。

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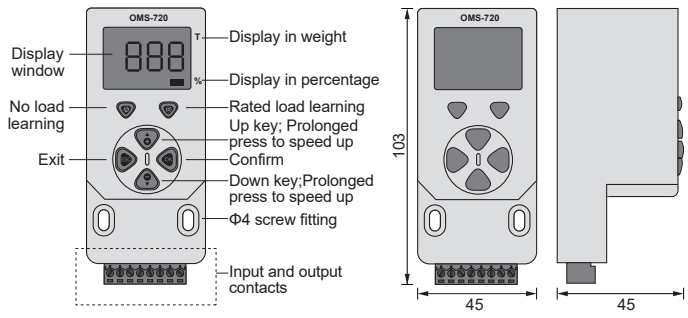
2019年印刷

ANT ELECTRONIC

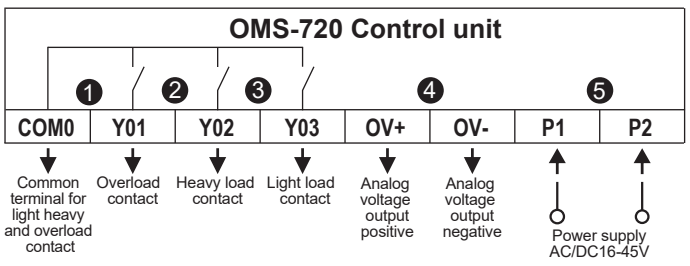
OMS-720
USER MANUAL (VER 1.9)

NINGBO ANT ELECTRONIC CO.,LTD

Appearance And Installation Dimensions Of The Main Controller



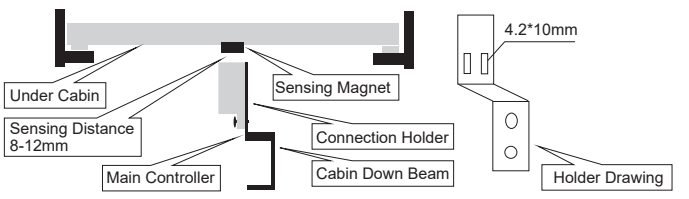
Interfaces Of The Main Controller



● **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. Analog voltage output changes linearly from -10V to +10V or 0V to +10V according to P06 setting when load varies.
5. Please make sure the working voltage is AC/DC16V-45V before normal operation;

Installation Drawing (Only for reference)



● **NOTES**

The induction magnet has a marked side which is opposite to the main controller. The magnet is a special rare earth magnet, which is strong and must be carefully installed in the process of installation.Any time to avoid the high temperature of 100 ℃ in order to reduce the accuracy of the measuring demagnetization.

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	Spare		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; 04 – Learning with any known weight load;	00
P06	Analog voltage output range setting;	00 – Analog voltage output -10V to +10V; 01 – Analog voltage output 0V to +10V;	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
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		

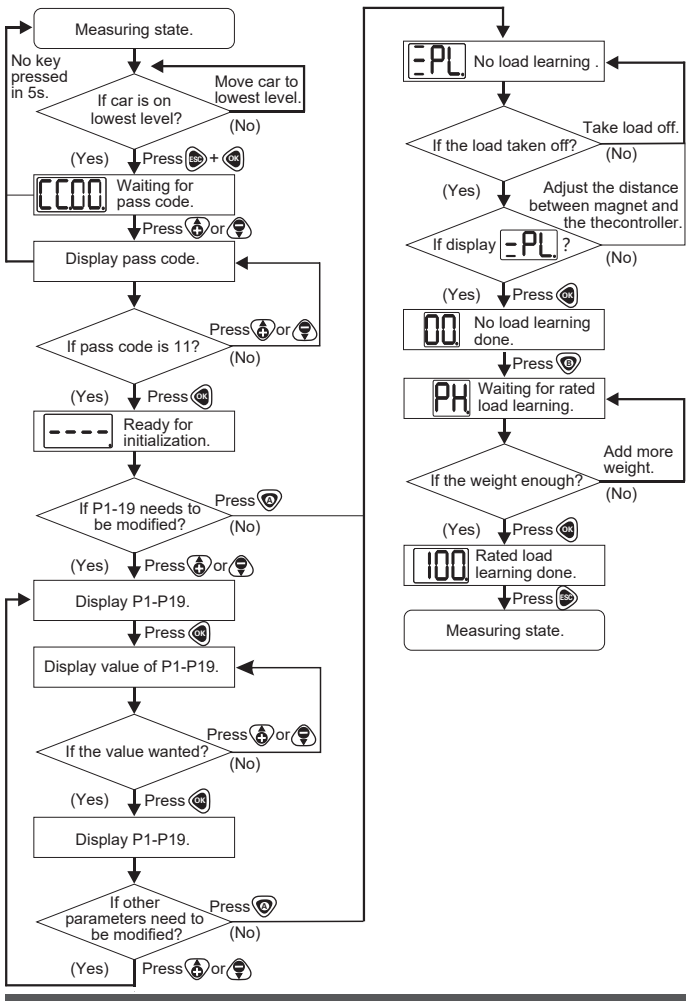
The Display Codes And Their Meanings

Codes	Explanation	States
C0.0	Twinkle for code entrance;	Code entrance
----	Twinkle for initialization;	Initialization state
P0.8	Parameter setting;	Initialization state
0.1	Value of Pn (n = 01-19);	Initialization state
1080	Weight: 1080 kilogram;	Measuring state
101	Percentage display of 101%;	Measuring state
E.P	Overload;	Measuring state
-PL	Ready for no load learning;	Initialization state
0.0	No load learning complete;	Initialization state
PH	Ready for rated load learning;	Initialization state
100	Rated load learning complete;	Initialization state
E.0	Error code;	Initialization state

Common Trouble Code And Countermeasure To The Trouble

Codes	Phenomena/explanation	Countermeasure
E.0	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;
E.1	No no load learning performed during initialization process;	Perform no load learning before rated load learning process;
E.2	Mistake with front and back side of magnet;	Ajust front and back side, make the front side be directed at the sensor;
E.6	The shift position is too near;	The distance between the controller and the magnet is too near;
E.7	The shift position is too far;	The distance between the controller and the magnet is too far;

Flow Chart For Device Initialization



Procedures For Device Initialization

This system provides 2 initialization methods:

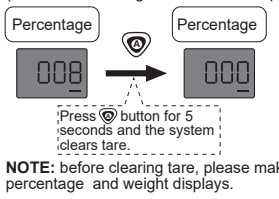
① Initialization with full weight load: if there is enough weight on site and high measurement precision required.

② 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.

● **Hotkey for prompt tare clearing**

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

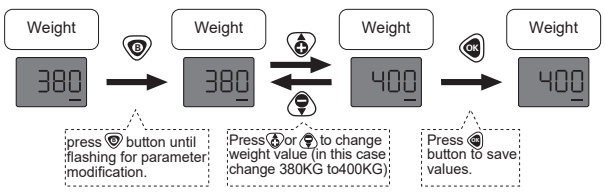


NOTE: before clearing tare, please make sure that the equipment has no load, good for both percentage and weight displays.

Procedures For Device Initialization

● **Fast data modification**

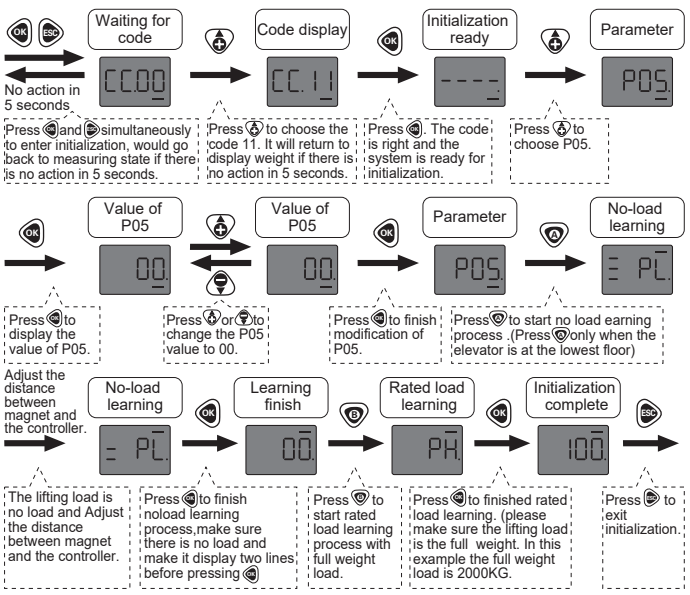
(This case is for changing display of 380KG to real display of 400KG)



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

● **Initialization with full weight rated load**

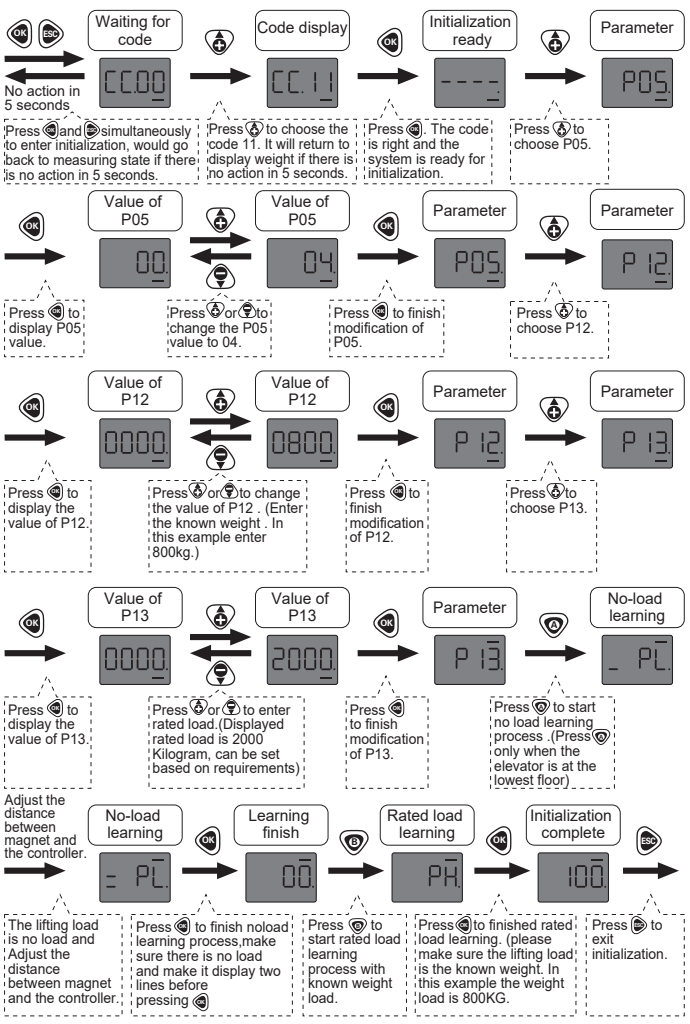
(In this case, rated load is 2000KG and weight is 2000KG)



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**

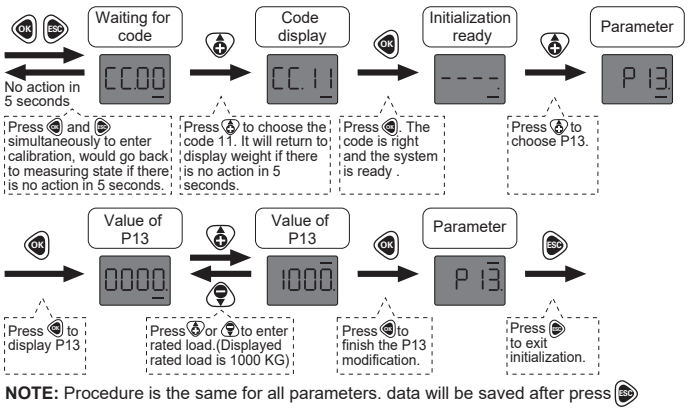
(In this case, weight is 800KG and rated load is 2000KG)



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.

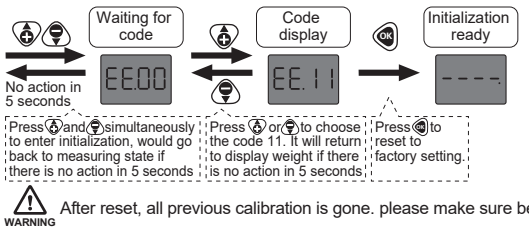
● **Fast parameter modification**

(Following is parameter P13 modification procedures)



NOTE: Procedure is the same for all parameters. data will be saved after press ESC

● **Reset to factory setting**



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

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