

第七节 TIC III 电梯诊断仪用户手册

TIC-III Lift Diagnostic Unit

User's Guide

(Version 200210)

zhangliangliang collation

SAFETY INFORMATION

- The installation and adjustment of elevator is a kind of special and dangerous. Non-adherence to the instructions in this operating manual can lead to death, severe bodily injuries and considerable damage to property
- Alongside the information in this operating manual, observe also the statutory safety- and accident-prevention regulations of Thyssen Elevators
- Only appropriately qualified personnel of ThyssenKrupp Elevators may adjust with the elevator described in this manual
- The entire personnel who adjust the elevator described in this manual must be familiar with all warning indications and measures that are listed in this description for assembly, control and operation of the elevator equipment
- Non-qualified personnel are to be prohibited from working on elevators described in this manual
- Personnel must possess knowledge of First-Aid measures as well as the local rescue facilities
- Under qualified personnel, reference is made to those persons, who, based on their training, experience, instructions received as well as their knowledge of relevant standards, regulations, regulations for the prevention of accidents and working conditions, have been authorized by those responsible for the safety of the installation to carry out the respective activities necessary.
- Fundamentally, all electrical equipment should be disconnected from the supply power before every intervention in the electrical or mechanical parts of the installation
- Arbitrary alteration or conversions on or in all electrical equipment, its elements or accessories automatically excludes all guarantees
- The safety instructions included in this manual do not constitute or claim any statement of completeness
- The manufacture undertakes no liability for damage or stoppages that could result from non-adherence to this operation manual

安全信息

- 电梯的安装和调试具有各种各样的特殊性和危险性。违反操作指示可导致严重人员伤亡或者巨大财产损失。
- 遵守手册规定和法令的安全事故预防规则。安装安全负责人必须确保。
- 唯合格员工可操作调试手册中所叙述的电梯。
- 操作电梯的所有员工必须熟悉警告和调试手册中所叙述的电梯的组装、控制和操作。
- 禁止非合格员工操作调试手册中叙述的电梯。
- 员工必须掌握急救知识并熟知当地援救设施。
- 合格员工是指经过培训、掌握相关知识和事故预防及工作环境规格的有经验员工，并且要获得安装安全负责人的认可。
- 原则上，操作任何电梯设备部件前，须切断一切控制电源。
- 对于擅自更改电气部件和附件，自动取消一切质量保证。
- 这些安全指示并未囊括所有安全条例。
- 对于不遵守操作手册引起的损失或停工，制造商不承担责任。

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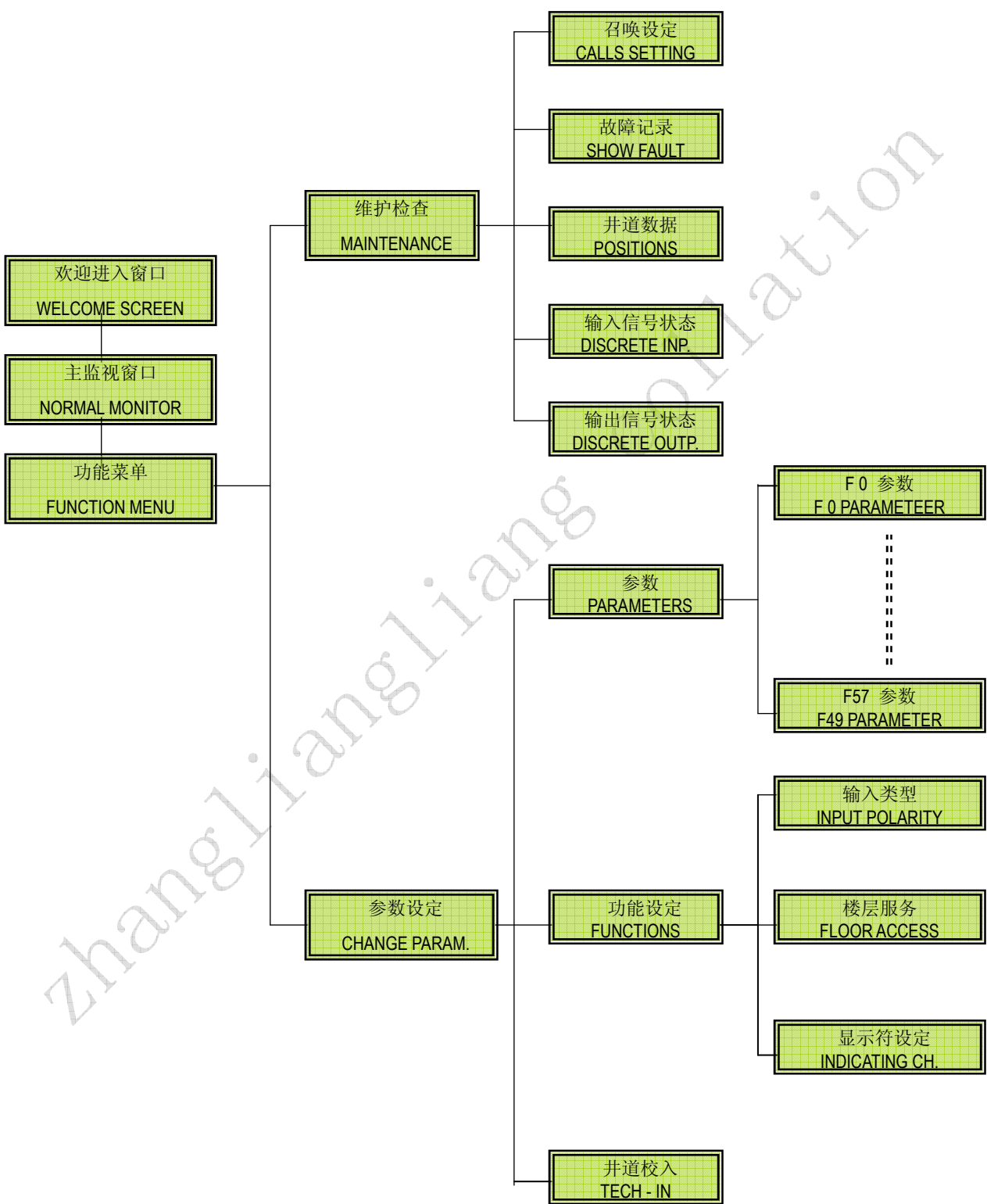
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2. 诊断议功能总图

The Functions Diagram of Diagnostic Unit



3. 主监视窗口说明

Instruction of General Monitoring Screen

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==ThyssenKrupp==

Welcome to

TIC III Lift

(ULT :200)

“欢迎进入” 窗口
WELCOME SCREEN

如左图所示，LCD 面板上首先显示 “欢迎进入” 的窗口。
操作如下：
As shown at left, at first a “WELCOME SCREEN” will be displayed at LCD as soon as the unit power up, and then you can operate as follows:

“欢迎进入” 窗口
WELCOME SCREEN

按任意键
Press any key

“主监视” 窗口
NORMAL MONITOR

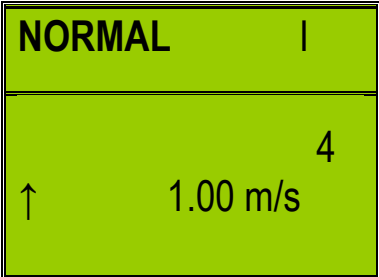
按 ECS 键
Press ESC

注意 (CAUTION)

其中底部显示 ULT 为该诊断仪的限制使用次数，
如该值为 0，则该诊断仪在回厂更新前，不能再被
正常使用。
As displayed at the bottom of this screen, the ULT value is
the limiting times of this unit, and the factory can
reprogram the value only. The ULT value will decreases
as each operation. It will out of operation as soon as the
value is to zero.

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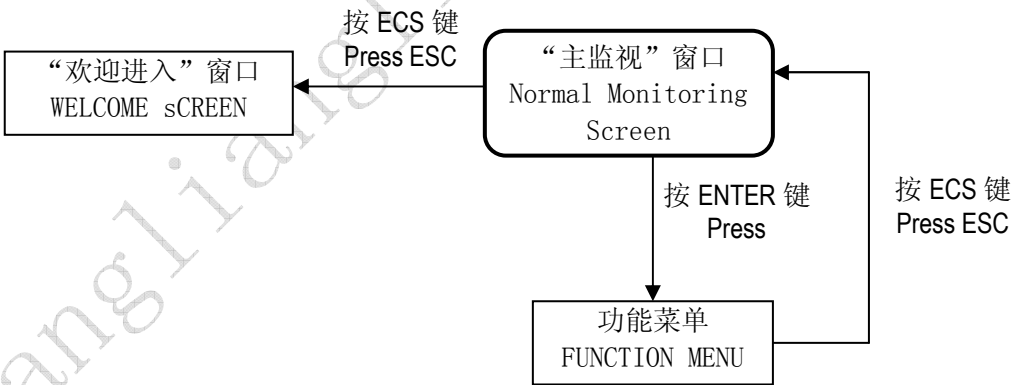
“主监视”窗口
Normal MONITOR Screen.

如左图所示，LCD 面板上显示“主监视”窗口，显示信息如下：

Shown as left, the windows of “Normal Monitor Window”, can be displayed with follow information:

- 电梯运行状态;
Current Running Statues;
- 单梯 (I) 或并联 (II) 模式运行;
Single Mode (I) or Duplex mode (II);
- 当前楼层;
Current Floor;
- 当前运行方向及速度;
Current direction and running speed.

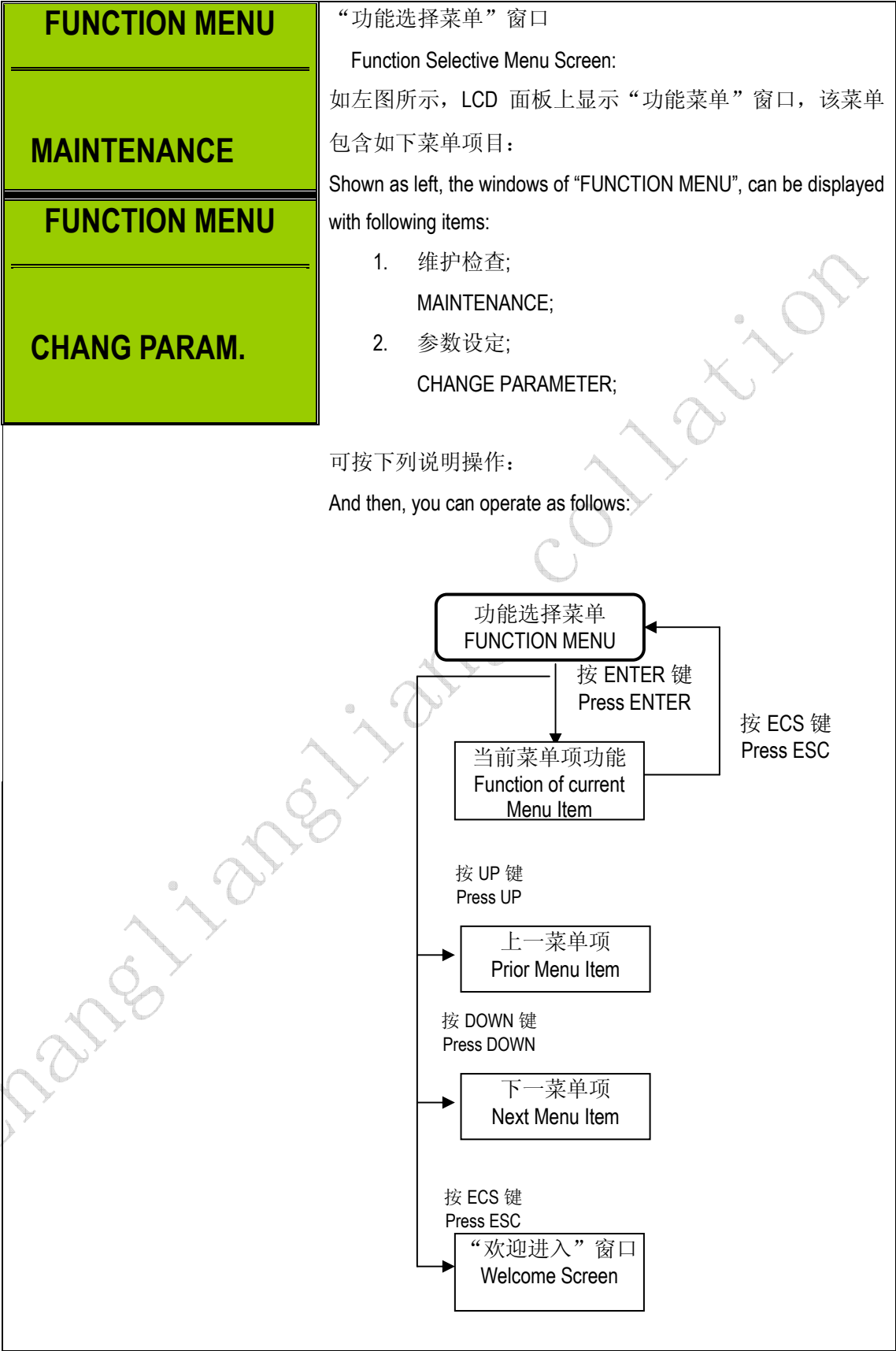
可按下列说明操作：
And then, you can operate as follows:



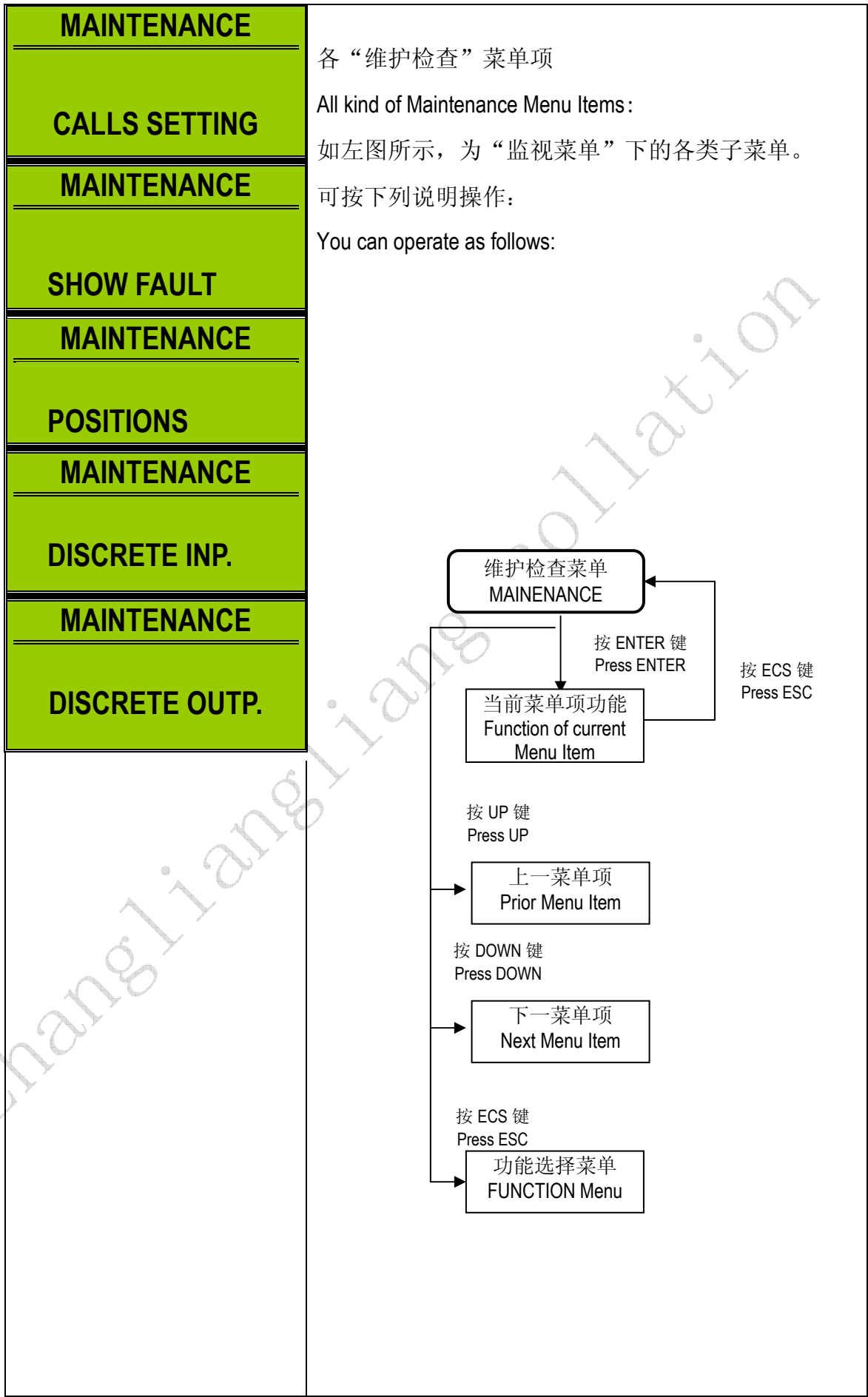
4. 功能选择菜单说明

Instruction of Function Selective Menu

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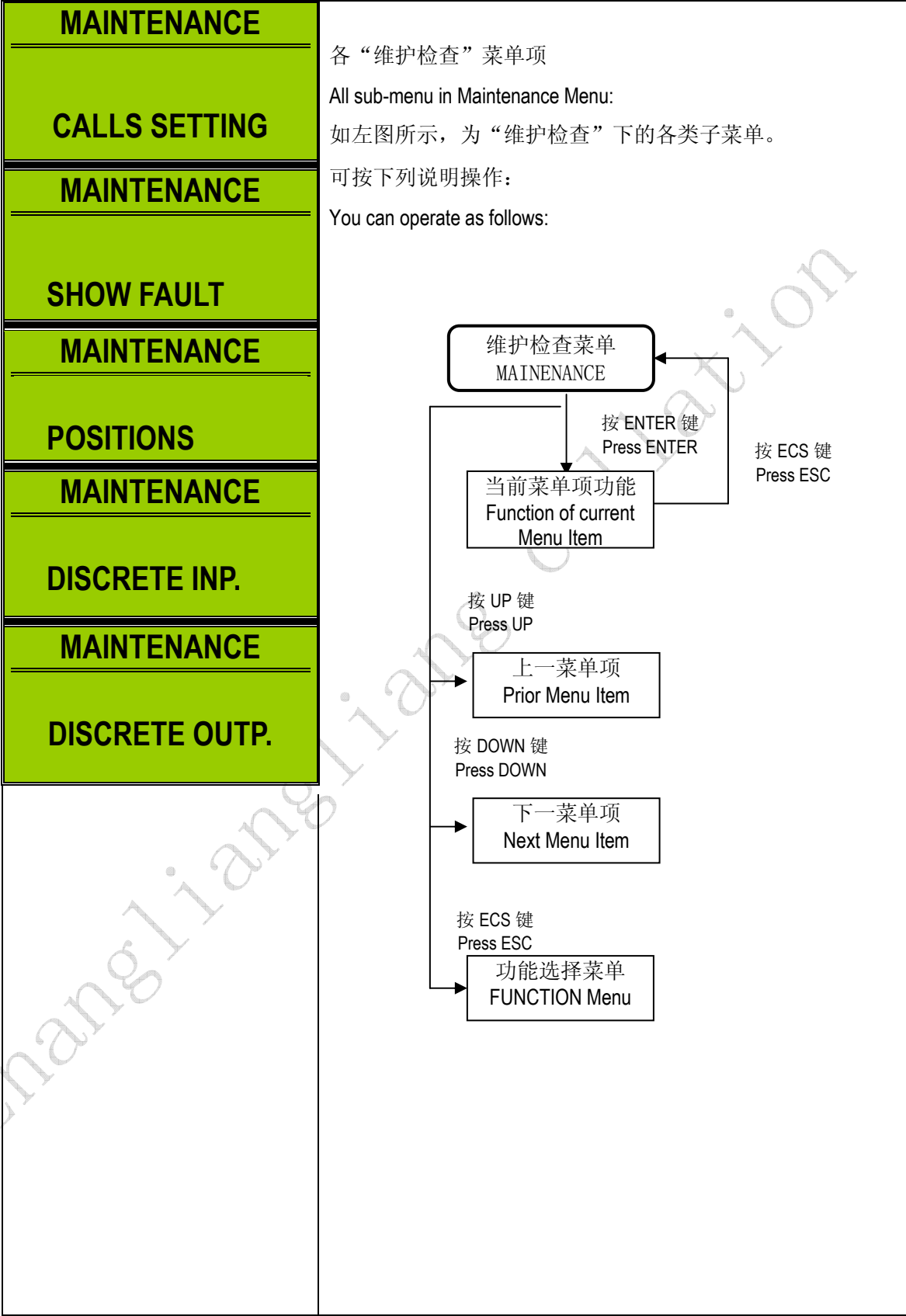
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5. 各维护检查功能说明

Instruction of Maintenance Functions

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CALLS

2

C: - * - - - - -

U: - * - - - - -

D: - * - - - - -

“召唤设定”功能窗口
CALLS Setting Screen

如左图所示，为“召唤”窗口。

Shown at left, it is a CALLS setting screen .

显示信息：
The information Displayed as:

- 第一行：窗口标题 – “召唤”及当前操作楼层；
Line 1: The screen title – “CALLS” and the operating floor number;
- 第二行：当前轿内指令信息，“-”表示该指令无“登记”；
“*”表示“已登记”；
Line 2 : the current information of instructions inside car.
“-” represent as “unregistered” and “*” as “registered.”
- 第三行至第四行分别表示上下外召指令信息，表示方法同轿厢指令；
Line 3 and Line 4: display the UP calls and DOWN calls at hall respectively, the representing method is same as the line 2.

操作步骤如下：
Operating procedure as follows:

退回 维护检查菜单
Exit to
MAINTENANCE MENU

ESC

召唤设定功能
CALLS Function

ENTER

操作楼层相应指令
Make a call of the operating
floor

ESC

UP, DOWN

各召唤类型切换
Switch to another type call

LEFT, RIGHT

改变操作楼层
shift a operating floor

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SHOW FAULT

Stack: 2

Code: 32

Time: 134217728

故障显示功能窗口

SHOW FAULT screen:

如左图所示，为“故障记录”显示窗口。

显示信息：

The information Displayed as:

- 第一行：窗口标题 - “故障显示”；
Line 1: The Screen title – “SHOW FAULT”;
- 第二行：故障记录序号；
Line 2: The fault stack number;
- 第三行：故障代码；
Line 3: The Fault Code;
- 第四行：故障发生时间。
Line 4: The occurred time of this fault.

可按下列说明操作：

You can operate as follows:

故障显示功能
SHOW FAULT Function

UP

显示高堆栈号故障
Show the fault recorder in
higher stack

DOWN

显示低堆栈号故障
Show the fault recorder in
lower stack

ESC

退回 维护检查菜单
Exit to
MAINTENANCE MENU

POSITIONS

0116723216

0216777216

0316831216

楼层位置数据功能窗口

POSITIONS of all levels checking screen:

如左图所示，为楼层位置数据功能窗口。

As shown at left, it is a checking screen for positions of all levels.

显示信息：

The information Displayed as:

- 第一行：窗口标题 - 楼层井道数据；
Line 1: The screen title – POSITIONS;
- 第二行 - 第四行：各楼层的平层位置（以脉冲数表示）。
Line 2 to Line 4: The landing level positions of 3 floors (represented as encoder pulses)

可按下列说明操作：

You can operate as follows:

楼层位置显示功能
POSITIONS Function

UP

显示 3 个更高楼层数据
Show the positions of 3
higher floor levels

DOWN

显示 3 个较低楼层数据
Show the positions of 3
lower floor levels

ESC

退回 维护检查菜单
Exit to
MAINTENANCE MENU

DISCRETE INP.
X0:ON X1:OFF
X2:ON X3:OFF
X4:ON X5:OFF

输入信号状态功能窗口

DISCRETE INPUTS State Checking screen:

如左图所示，为输入信号状态显示窗口。
As shown at left, it is a "Input State" checking screen.

显示信息如下：

The information Displayed as:

- 第一行：窗口标题 - “输入信号状态”；
Line 1: The screen title – “DISCRETE INPUTS”;
- 第二行 - 第四行：6 个输入信号的当前状态，其中 Xn 表示输入信号名称，ON/OFF 为该输入信号的当前状态，ON 表示“激活”状态，OFF 为“断开”状态。
Line 2 to Line 4: The current states of 6 isolated inputs of the lift control system. Xn represent the input name, and ON represent ACTIVATED state, OFF represent BROKEN state.

可按下列说明操作：

You can operate as follows:

输入信号显示功能
DISCRETE INP. Function

UP
上 6 个输入信号的状态
Show the prior 6 inputs state

DOWN
下 6 个输入信号的状态
Show the next 6 inputs state

ESC
退回 维护检查菜单
Exit to MAINTENANCE MENU

DISCRETE OUTP.
Y0: OP Y1: OP
Y2: CL Y3: OP
Y4: OP Y5: CL

输出信号状态功能窗口

DISCRETE OUTPUTS state Checking screen:

如左图所示，为输出信号状态功能窗口。

As shown at left, it is a DISCRETE OUTPUTS checking screen.

显示信息：

The information Displayed as :

- 第一行：窗口标题 - “输出信号状态” ；
Line 1: The screen title – “Output State” ；
- 第二行 - 第四行：6 个输出信号的当前状态，其中 Y_n 表示输出信号名称，OP/CL 为该输出信号的当前状态，OP 表示于 “开路” 状态，CL 为 “闭合” 状态。
Line 2 to Line 4: The current states of 6 discrete outputs of the lift control system Y_n represent OUTPUT NAME, and OP represent OPEN state, CL represent CLOSE state.

可按下列说明操作：

You can operate as follows :

输出信号显示功能
DISCRETE OUTP. Function

UP

上 6 个输出信号的状态
Show the prior 6 outputs state

DOWN

下 6 个输入信号的状态
Show the next 6 outputs state

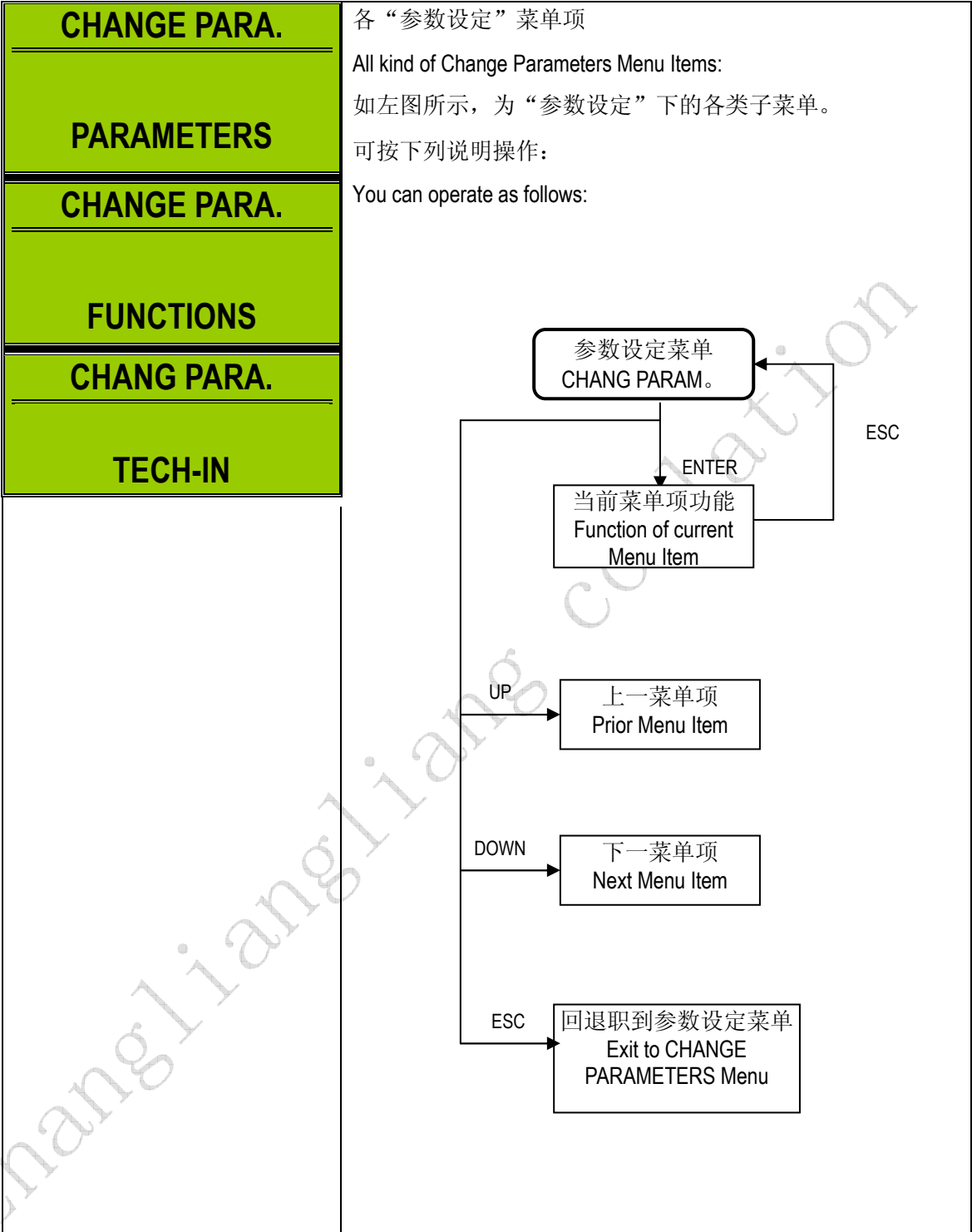
ESC

退回 维护检查菜单
Exit to MAINTENANCE MENU

6. 参数设定功能说明

Instruction of Change Parameters Function

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F0 PARAMETER

Acceleration

50 cm/s²

F 1 PARAMETER

Deceleration

52 cm/s²

F57 Parameter

Down

Level Adj.

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参数项功能-----查阅操作

Parameters Function ---- Checking Operation:

如左图所示，为各“参数项功能”查阅窗口。

As shown at left, it is a Parameters checking screen.

显示信息：

The information Displayed as:

- 第一行：当前参数项序号；
Line 1: The parameter item number of checking;
- 第三行：当前参数项名称；
Line 3: The parameter item name of checking;
- 第四行：该参数项当前值；
Line 4: The current value of checking parameter item.

可按下列说明操作：

You can operate as follows:

输出信号显示功能
DISCRETE OUTP. Function

UP

显示上一个参数项
Show the prior parameter item.

DOWN

显示下一个参数项
Show the next parameter item.

ENTER

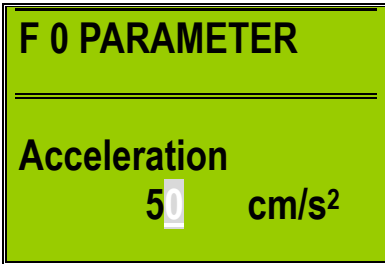
进入当前参数项编辑状态
Enter to the editing state of the
checking parameter

ESC

退回 “参数” 菜单项
Exit to
PARAMETERS MENU

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参数项功能-----编辑操作

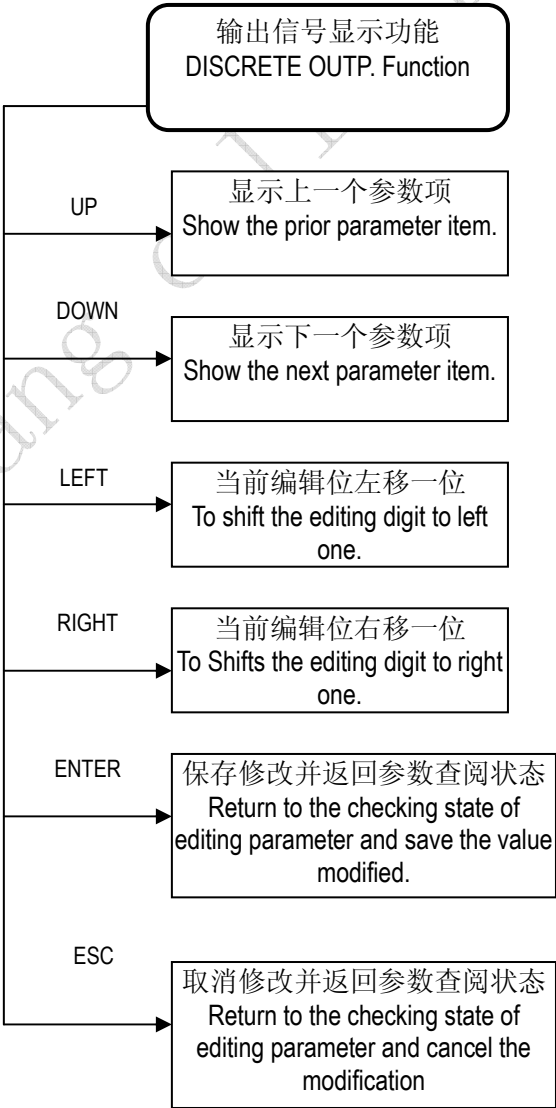
Parameters Function ---- Editing Operation:

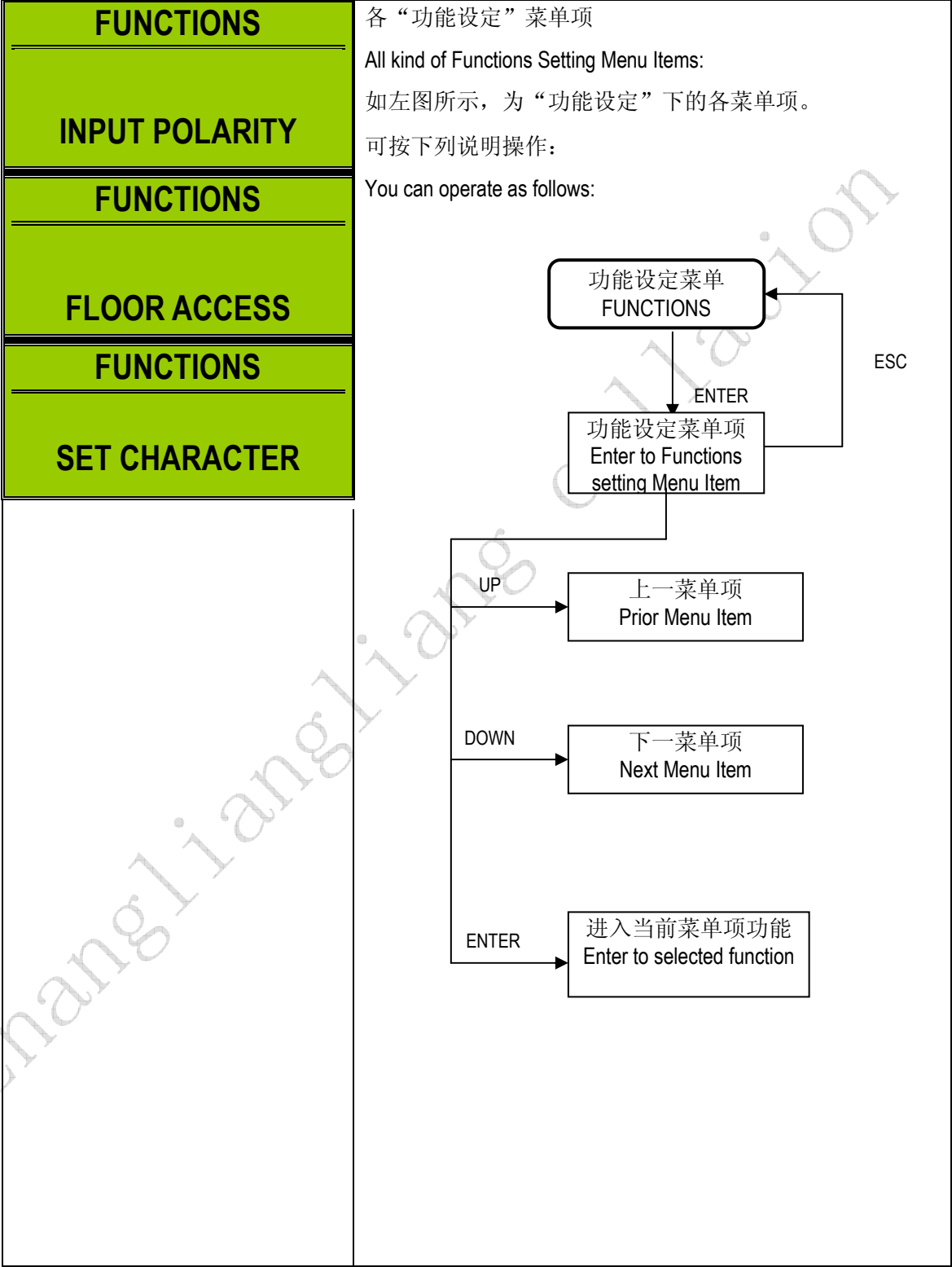
如左图所示，当参数项进入编辑状态后，参数值中，正在编辑的位反色显示并且光标闪动。

As shown at left, the editing DIGIT of parameter value is displayed reversely and a cursor blinking under this DIGIT.

可按下列说明操作：

You can operate as follows:





INPUT POLARITY	
X0:	N/C
X1:	N/O
X2:	N/O

输入信号极性功能窗口
INPUT POLARITY function screen:

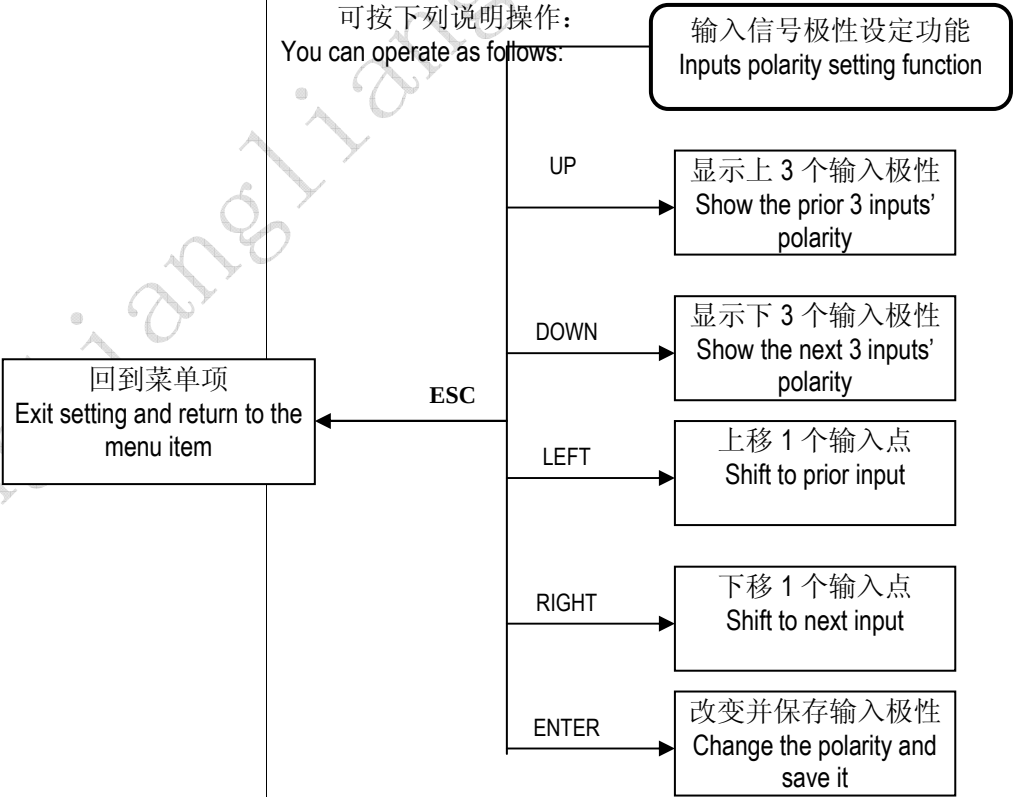
如左图所示，为各“输入类型”编辑窗口。
As shown at left, it is a “INPUT POLARITY” editing screen.
显示信息：

The information Displayed as:

- 第一行：窗口标题 – “输入信号极性”；
Line 1: The screen title – INPUT POLARITY;
- 第二行 – 第四行：显示三个输入信号的当前类型并可编辑。其中“Xn”表示输入信号名，“N/C”、“N/O”分别表示“常闭”类型及“常开”类型；光标所在位置并且类型值字符反色显示的相应信号，为当前可编辑信号。
Line 2 to Line 4: the current polarities of 3 Input Points are displayed, and they can be modified. “Xn” is the Input Name, “N/C”, “N/O” are “Normal Close” type and “Normal Open” type respectively. The current Input Point type can be modified is the one which type information is reverse displayed and a blink cursor under it.

可按下列说明操作：

You can operate as follows:



FLOOR ACCESS
Flr1: **E**nable
Flr2: **E**nable
Flr3: **D**isable

“服务楼层”编辑窗口
Suppression of floors setting screen:

如左图所示，为各“服务楼层”编辑窗口。
As shown at left, it is a “FLOOR ACCESS” screen.

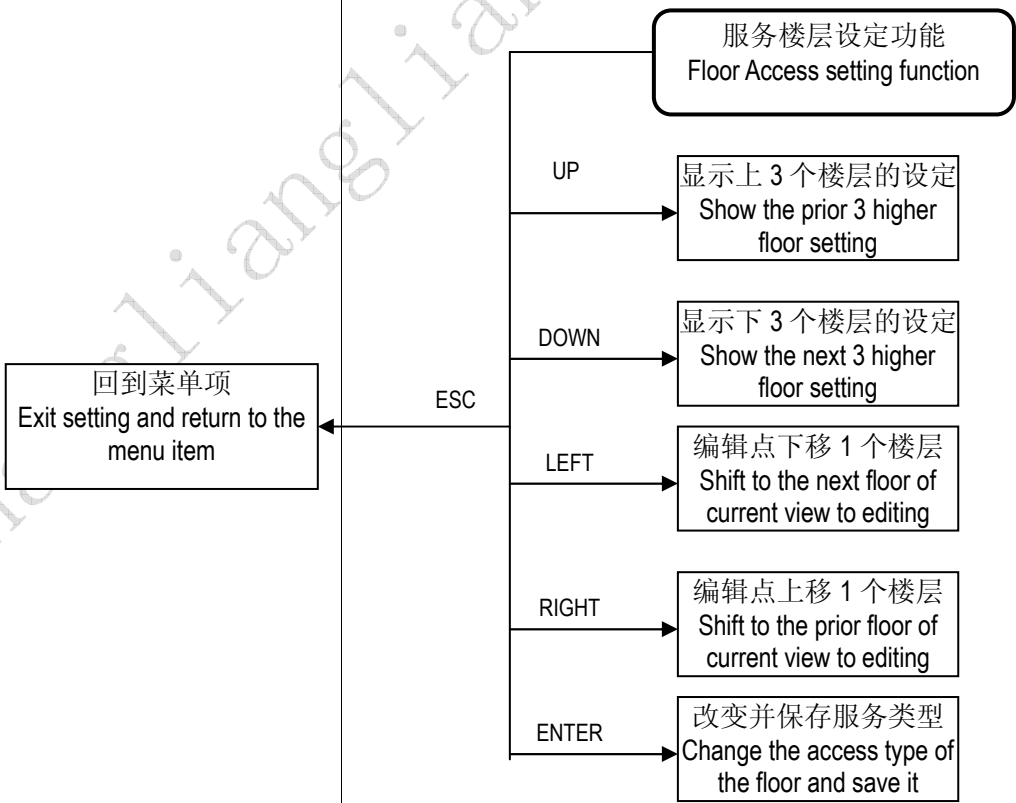
显示信息:

The information Displayed as:

- 第一行：窗口标题 – “服务楼层”；
Line 1: The screen title – “FLOOR ACCESS”;
- 第二行 – 第四行：显示三个楼层的服务信息并可编辑。
其中 “Flrn” 表示楼层号，“Enable”、“Disable” 分别表示“服务楼层”及“非服务楼层”；光标所在位置并且字符反色显示的相应信息，为当前可编辑楼层。
Line 2 to Line 4: 3 floors information are displayed and can be modified. “Flrn” represent the “Floor number”, “Enable” and “Disable” represent the concern floor if is service one or not .

可按下列说明操作:

You can operate as follows:



INDICATING CH.

01:1

02:2

03:3

“显示字符” 窗口-- 查阅
Indicating Characters Setting Screen -- checking

如左图所示，为各“显示字符” 查阅窗口。

As shown at left, it is a “Indicating Character” checking screen.

显示信息：
The information Displayed as:

- 第一行：窗口标题 - “显示字符” ；
Line 1: The Screen title – “Display Set”;
- 第二行 - 第四行：显示三个楼层的楼层号及显示字符。
其中第一列位置表示楼层号，第二列位置”表示显示符。
Line 2 to Line 4: 3 floors Indicating Code are displayed and can be modified. The Floor Number locating at column 1 and Indicating Code at column 2.

可按下列说明操作：
You can operate as follows:

显示字符功能—查询
Indicating Character Function
--Checking Operation

UP

显示上 3 个楼层的设定
Show the prior 3 higher floor setting

DOWN

显示下 3 个楼层的设定
Show the next 3 higher floor setting

ENTER

进入编辑状态
Enter to editing operation

ESC

回到菜单项
Exit checking and return to the menu item

INDICATING CH.

01: 1

02: 2

03: 3

“显示字符” 窗口-- 编辑
Display Set view display -- Editing

如左图所示，为各“显示字符”编辑窗口。

As shown at left, it is a “Display set” editing screen.

显示信息同查阅时类似，除下列情况外：
The information Displayed is similar with the Checking screen except that:

- 第二行 – 第四行：“反色”显示且下有光标的字符，当前可修改。

Line 2 to Line 4: you can modify the Indicating Code under which the blinking cursor is and this code is displayed reversely.

可按下列说明操作：
You can operate as follows:

显示字符功能—编辑
Indicating Character Function
--Editing Operation

UP

以上方向改变显示字符
Modifying the character in up direction

DOWN

以下方向改变显示字符
Modifying the character in down direction

LEFT

编辑点下移 1 个楼层
Shift to the next floor of current view to editing

RIGHT

编辑点上移 1 个楼层
Shift to the prior floor of current view to editing

ENTER

保存修改并回到查询状态
Save the modification and return to checking scr.

ESC

放弃修改并回到查询状态
Cancel the modification and Return to checking scr.

测井道功能说明

Instruction of "Tech In"

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TEACH IN ===== WAIT... TEACH IN ===== TEACH OK!	“测井道”窗口 TEACH IN Operation Screen 如左图所示，为各“测井道”窗口。 As shown at left, it is a “Tech in” Operation sreen. 操作步骤如下： Operating procedure as follows: ● 第一行显示窗口标题—“测井道”； The window title “Tech in” is displayed at line1; ● 在第三行显示“测井道”信息：首先显示“请等待”字样，一旦测井道成功，将显示“测井道完成”信息；反之显示“测井道失败”信息 The information of “Waiting...” is displayed at line 3 firstly, and “Tech OK!” will instead it if taught successfully or “Tech Fail!” will instead it if taught failed. ● 按“ENTER”键回退到功能选择菜单； Push the “ENTER” button to return the “Function” menu.
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Appendix A Parameter List Table

附录 A 电梯参数列表

Parameter № 参数号	Parameter Name 参数名称	Unit 单位	出厂设置	Remark 备注
F(0)	Accel. Rate 加速度	cm/s ²	50	调整起动加速度
F(1)	Decel. Rate 减速度	cm/s ²	50	调整制动减速度
F(2)	Jerk T0 S 曲线 T0	s	150	
F(3)	Jerk T1 S 曲线 T1	s	110	
F(4)	Jerk T2 S 曲线 T2	s	110	
F(5)	Jerk T3 S 曲线 T3	s	150	
F(6)	Rated Speed 电梯额定速度	cm/s	160	电梯标定值
F(7)	Motor Revolution 电机额定转速	rpm	1440	电动机铭牌值
F(8)	Encoder P/R 编码器脉冲数	ppr	600	选用编码器的每转脉冲数
F(9)	Lobby 基 站		1	
F(10)	Floor Offset 楼层偏置		0	
F(11)	No of Stops 总楼层数		24	
F(12)	Insp. Speed 检修速度	cm/s	25	检修运行时的速度
F(13)	Creeping Speed 返平层速度	cm/s	6	自动找平层时的速度
F(14)	H-Call Door Time 开门延时 1	s	40	响应召唤停梯时开门保持时间
F(15)	C-Call Door Time 开门延时 2	s	25	响应内选停梯时开门保持时间
F(16)	Starting Delay 抱闸延时 1	s	10	启动松开抱闸后经延时 1 给定速度曲线
F(17)	Stopping Delay 抱闸延时 2	s	5	停车时, 抱闸在给定的零速后延时抱闸
F(18)	Fire Floor 消防基站		1	
F(19)	Homing Floor 锁梯基站		0	
F(20)	Homing Delay 返基时间	s	0	
F(21)	Level Adjustment 平层调整	cm	73	平层不准时调整平层精度
F(22)	Duplex Lobby 并联基站		1	

F(23)	Group Mode 并联模式		0	
F(24)	D/A Selection 给定模式		1	
F(35)	Fire Lift Setting 消防模式		0	0 为消防梯模式; 1 为消防回归功能
F(36)	Brk. Moni. Delay 抱闸开关动作延时	ms	30	用于抱闸开关检测点
F(44)	Node Address 通信地址			
F(45)	Decel. Dist.-V1 单层减速距离			
F(46)	Decel. Dist.-V2 双层减速距离			
F(47) Deceleration	Decel. Dist.-V3 多层减速距离			
F(48)	Flr. Under Lobby 地下层站数			
F(49)	Homing Enable 返基有效			
F(50)	Front Access-L			
F(51)	Front Access-M			
F(52)	Front Access-H 前开门设置			
F(53)	Rear Access-L			
F(54)	Rear Access-M			
F(55)	Rear Access-H 后开门设置			
F(56)	Level Adjust.-U 上行平层调整			
F(57)	Level Adjust.-D 上行平层调整			