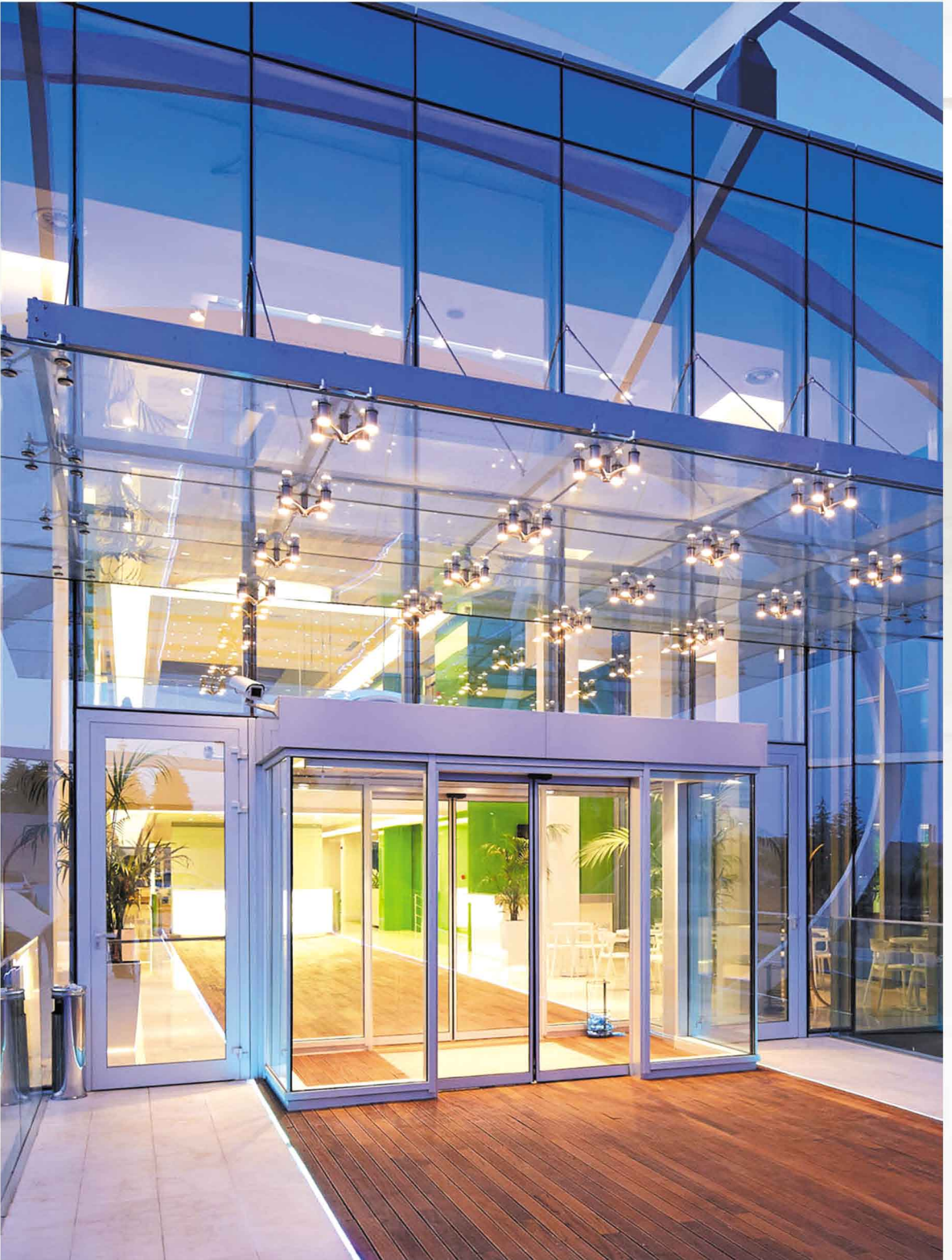


Install Manual

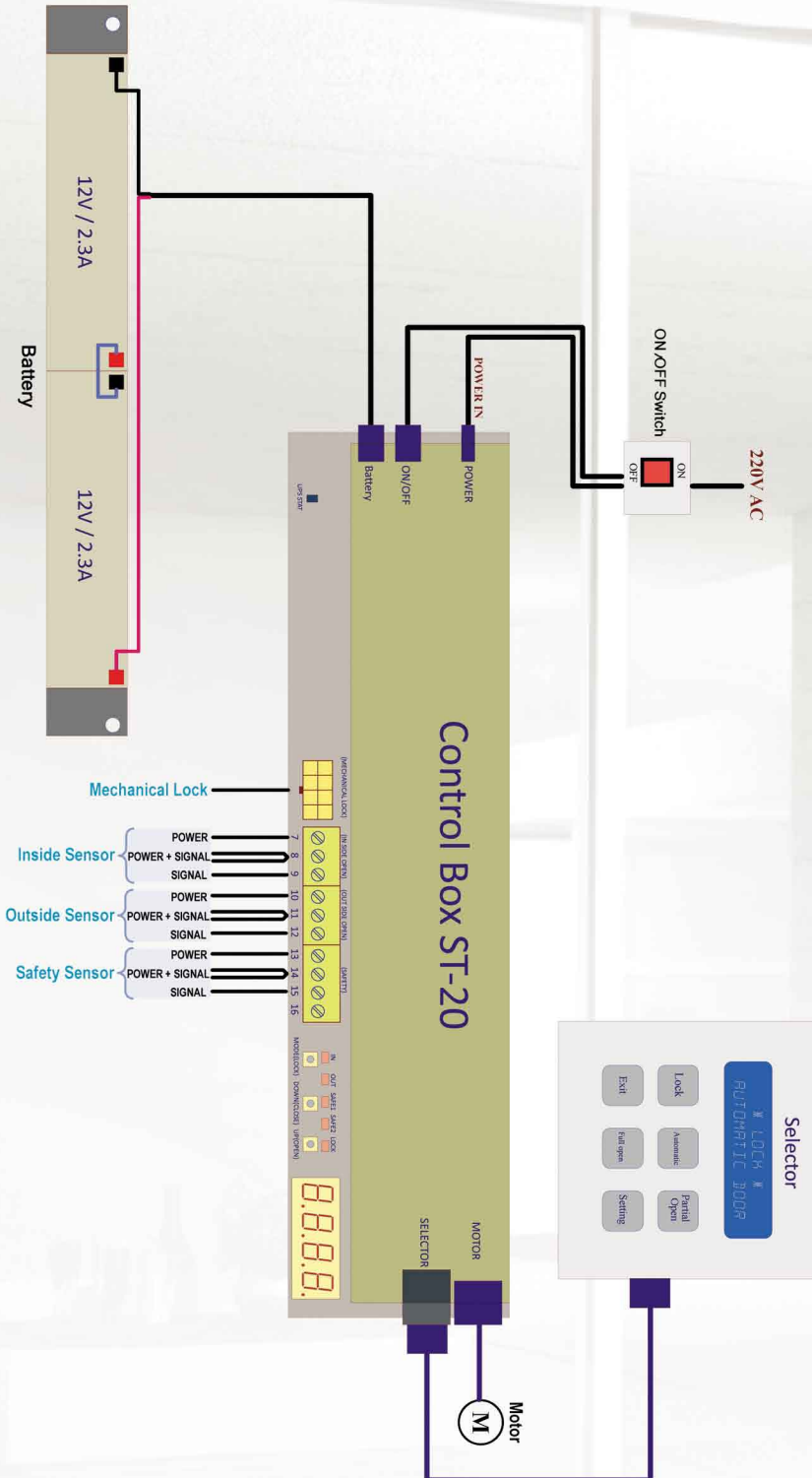
2019-20

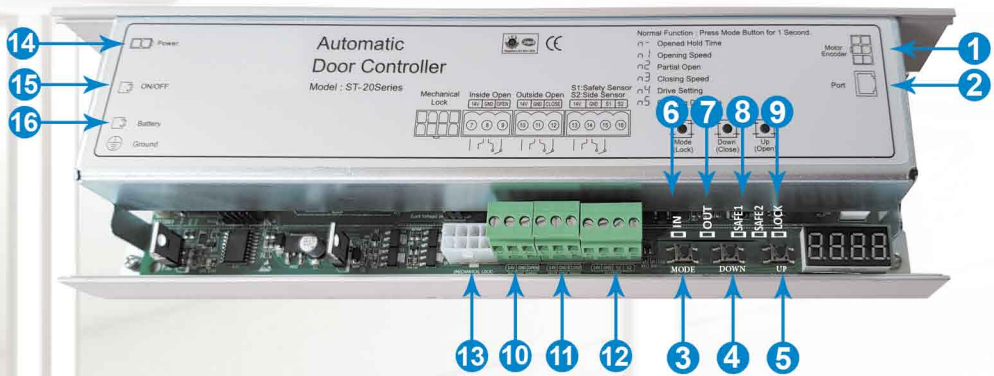


CONTROL BOX
ST-20



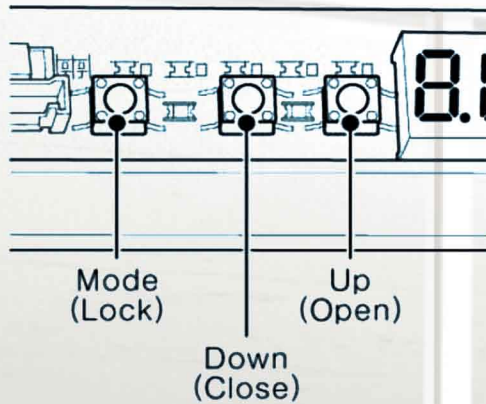
Control Box ST-20





Control Box ST-20

1	Socket for motor	9	Red led for lock
2	Socket for digital selector	10	Terminal for inside sensor
3	Mode button	11	Terminal for outside sensor
4	Down (Close) button	12	Terminal for safety sensor
5	Up (Open) button	13	Socket for mechanical lock
6	Green led for inside open	14	Socket for power 220V
7	Green led for outside open	15	Socket for on/off switch
8	Yellow led for safety sensor open	16	Socket for battery



- Press Mode button For Select Function, and adjust a value with Down (Close) button and Up (Open) button.
- Normal modet : Press mode button for 3 seconds
- Counting mode : Press mode button for 5 seconds
- Expansion mode : Press mode button for 10 seconds



WARNING

After setting the value , Press Mode button for 3 seconds return. It will be appeared Lock LED signal Lamp after finishing setting, you have to press Up or Down button to release operator Lock .

Function

Normal Mode

* Press mode buon for 3 seconds to open normal mode

Sign	Function	Description
n-	Open Hold Time	- Waiting time until re-operation to close the door after opened. - Setting range : 1~999 seconds, change unit :1 - Factory Setting : 00 seconds.
n1	Opening Speed	- Setting range : 00~90 , change unit :10 - Factory Setting : 60
n2	Partial Open	- Setting range : 20~95 , change unit : 05 - Factory Setting : 50
n3	Closing Speed	- Setting range : 00~90 , change unit :10 - Factory Setting : 40
n4	Driving Setting	- Setting range : 00~02 , Change unit :01 - Factory Setting : 00 - [00] normal mode : <OPEN and CLOSE automatically : inside or outside signal> If it is taken signal from inside or outside (sensor or touch switch ,etc),door will be opened , and after passing opened hold time (n-), the door will be closed automatically. But , if there is set the lock (ex , lock , device , lock button in the controller , etc) , door will be opened only by inside signal.It can't be opened by outside signal in this case. [01] semiautomatic : <OPEN → only inside signal > <CLOSE → only outside signal> The door will be closed when it has input CLOSE signal. But , it is not taken CLOSE signal directly. The door will be close automatically after passing Door Hold Time (n-).(But if you set Door Hold Time to 000 value , the door is not closed though passing Door Hold Time) [02] toggle mode : <OPEN → inside or outside signal > <CLOSE → inside or outside signal> If it is taken signal from either inside or outside , door will be opened . And it has to be taken signal again from either inside or outside in order to close the door.But if there is set the lock (ex , lock device , lock button in the controller , etc), door will be opened only by inside signal. It can't be opened by outside signal in this case . But , you can use one of both signal for closing. the door will be closed when it takes CLOSE signal. But , it is not taken CLOSE signal directly. The door will be close automatically after passing Door Hold Time (n-),(But , if you set Door Hold Time to 000 value , the Door is not closed though passing Door Hold Time)
n5	Open Direction	- Setting range : 00~05 . Change unit :01 - Factory Setting : 00 - [00] Left open [01] Right open

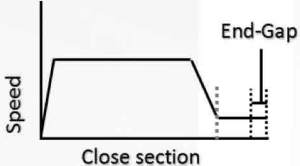
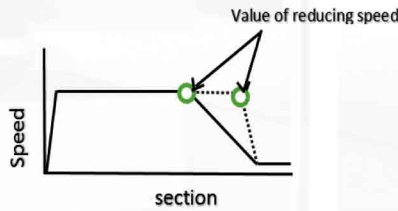
Counting Mode

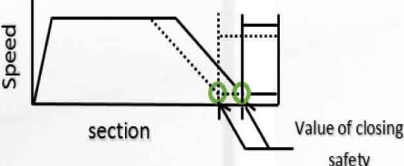
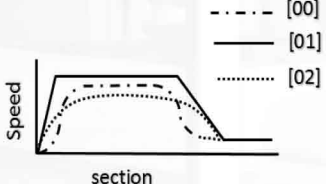
* Press mode buon for 5 seconds to open counng mode

Sign	Function	Description
Sec	Opening number	<ul style="list-style-type: none"> - Indicate number of opening. - Countable maximum 99,999,999 0mes. -In order to check from thousand unit to ten million unit , press DOWN button in the controller.
cdc	Bumping number	<ul style="list-style-type: none"> - Indicate number of bumping. - Countable maximum 99,999,999 0mes. -In order to check from thousand unit to ten million unit , press DOWN button in the controller
Poc	Power on number	<ul style="list-style-type: none"> - Indicate number of power on. - Countable maximum 99,999,999 0mes. -In order to check from thousand unit to ten million unit , press DOWN button in the controller.

Expansion Mode

* Press mode buon for 10 seconds to open expansion mode

Sign	Function	Description
E1	End-Gap	<ul style="list-style-type: none"> - Set the position of ending gap. - Setting range : 02~25 , Change unit :01 (0.33mm) - Factory Setting : 15 - End-Gap (Cushion section) : Door is not reverse turned,though there is obstacle in this section. 
E2	Reduce speed	<ul style="list-style-type: none"> - Set the position of reducing speed. - Setting range : 00~32 , Change unit :01 -Factory Setting : 16 -If it is changed value of reducing speed , it is changed slope (reducing power) of graph also. 

Sign	Function	Description
E3	Closing Safety	<ul style="list-style-type: none"> - Set the position of closing safety. - Setting range : 00~90 , Change unit :01 - Factory Setting : 10 - Door is reverse turned if there is obstacle in this section . -Although it is changed value of closing safety , it is not changed slope (Reducing power) of graph. 
E4	Opened by hand (Lock option)	<ul style="list-style-type: none"> - Lock option when it is opened by hand . - Setting range : 00~03 , Change unit :01 - Factory Setting : 00 - [00] : Lock , Power -off in the end-gap section. - [01] : Lock , Power -on in the end-gap section. - [02] : Open , Power -off in the end-gap section. - [03] : Open , Power -on in the end-gap section. - In case of door open [02]or [03], the door is opened automatically after pass through the end-gap section by hand. - Signal display [00] , [02] : Door close "HOLD" , after 1 second "End" [01] , [03] : Door close "HOLD"
E5	Electric Lock	<ul style="list-style-type: none"> - Electric lock setting. - Setting range : 00~02 , Change unit :01 -Factory Setting : 00 [00] : No setting [01] : N.C. [02] : N.O.
E6	Reopen Distance	<ul style="list-style-type: none"> - Set reopen distance when the power off
E7	Door Weight	<ul style="list-style-type: none"> - Set as door weight. - Setting range : 00~02 , Change unit :01 - Factory Setting : 00 - [00] : Light and narrow door - [02] : Heavy and broad door 

E6 setting

Setting	Action on power failure	Memory of open distance on power failure	Power-on again
[00]	OPEN ① UPS: Full open ② No UPS: 100mm open	X	close → open → close (re-setting for open distance)
[01]	No open	X	open → close (re-setting for open distance)
[02]	Operate with UPS (If there is no battery more, it will be finished with close position)	X	open → close (re-setting for open distance)
[03]	Operate with UPS (If there is no battery more, it will be finished with open position)	X	close → open → close (re-setting for open distance)
[04]	OPEN ① UPS: Full open ② No UPS: 100mm open	O	close (No open distance setting)
[05]	No open	O	No open distance setting
[06]	Operate with UPS (If there is no battery more, it will be finished with close position)	O	No open distance setting
[07]	Operate with UPS (If there is no battery more, it will be finished with open position)	O	close (No open distance setting)

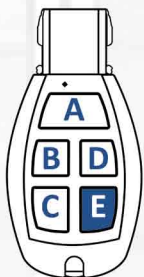
Troubleshooting

Trouble	Check / Factor	Action
Door is not operated at all.	Misconnection	<ul style="list-style-type: none"> • Check ON/OFF switch. • Check motor and power socket of controller
	In case of lock signal lamp on in the controller	<ul style="list-style-type: none"> • Release lock signal lamp with press down or open button.
	Misaligned of door	<ul style="list-style-type: none"> • Align the door with adjusting hanger roller
	Door derailment	<ul style="list-style-type: none"> • Put the hanger roller of door on the running track of rail.
	In case, sensor is connected with outside open terminal and set [01] semiautomatic mode of N4 (Drive setting)	<ul style="list-style-type: none"> • Change terminal to inside open or, set [00] normal mode of N4.
Door is not closed with Opened. (or, reopen repeatedly)	Wrong setting of open direction	<ul style="list-style-type: none"> • Resetting N5 [Open direction]
	Put something on the receiver or transmitter of safety sensor.	<ul style="list-style-type: none"> • Remove it.
	In case, N4 (Drive setting) is setting with [01] or [02]	<ul style="list-style-type: none"> • Set to normal mode [00]
	Upper sensor is detecting something	<ul style="list-style-type: none"> • Adjust sensitivity • Move obstacle
Noise	Dust in the running track	<ul style="list-style-type: none"> • Clean the track with dried cloth.
	Loose the belt.	<ul style="list-style-type: none"> • Tight the belt
	Door reached on the ground	<ul style="list-style-type: none"> • Lift up the door with adjusting hanger roller
	Dust on the belt	<ul style="list-style-type: none"> • Change of new belt

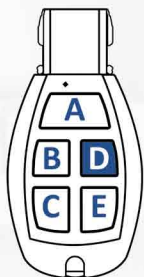


WARNING

Connected the earth line invariably



FULL OPEN



EXIT



PARTIAL



AUTOMATIC



LOCK

Digital Selector ST-20

summarized manual



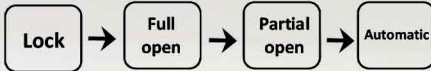
- Enter to the setting menu

Press the button **Setting** twice. Setting menu will appear on the display.

ENTER PASS:
SETTING MENU

- Pair new RF remote control

Press the buttons below consecutively then it will appear "Learning ..." on the display:



LEARNING ...
SETTING MENU

Now press a button on the remote control to display this message:

The number "01" indicates the number of Paired remotes.

SAVED. 01
SETTING MENU

- Clear all paired RF remote controls

Press the buttons below consecutively.



CLEAR ALL...
SETTING MENU

- Observe the number of paired RF remote controls:

Press **Partial open** four times consecutively. It will

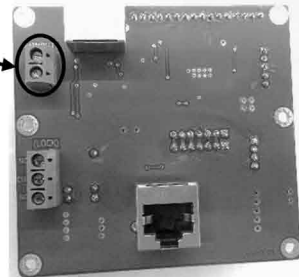
show front side image on the display and it indicates the number of remotes on the first line and the time elapsed from the last change of door state on the second line.

SAVED:02 REM
LAST:000,02H,24M

- Enable/disable the input terminal

Input terminal is used for external access control devices or push buttons. To enable or disable this terminal press the buttons below consecutively.

INPUT
TERMINAL



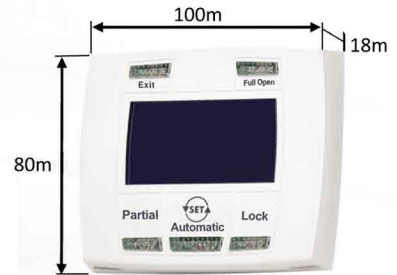
It will appear front side image on the display.

To disable this terminal just press the buttons that explained before again. It will show "INPUT DISABLE" on the display.

INPUT ENABLE
SETTING MENU

Digital Selector ST-30




summarized manual



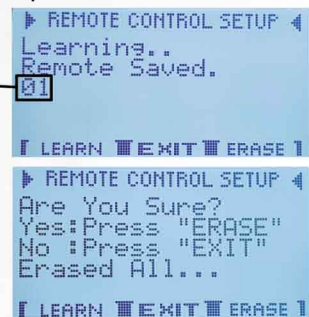
- Enter to the setting menu

Press **Automatic** () for 5 seconds continuously. Setting menu will appear on the display.


- Pair new RF remote control

In "setting menu" Press  /ENTER on the  icon (**REMOTE CONTROL SETUP**). In the following page press  /LEARN, then it will appear "Learning .." on the display. Now press a button on the remote control to pair new remote.



✓ "01" indicates the number of Paired remotes.

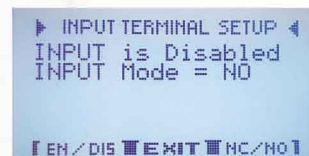


- Clear all paired RF remote controls



In "**REMOTE CONTROL SETUP**" page, press  /ERASE twice to clear all paired RF remotes.

- Enable/disable the input terminal

Input terminal (CN3) is used for external access control devices or push buttons. To enable or disable this terminal and select its mode, In "**INPUT TERMINAL SETUP**" page press  (EN/DIS) twice to enable or disable the terminal as well as  (NC/NO) to change the operating mode of the terminal.



- Enable/disable momentary press condition

This condition is used to press just one button from keypad of device, RF remotes and cellphones to change the operating mode of the door to "OPEN" state and after pass 5 seconds it will return to its previous operating mode. It can define for "Exit" or "Partial" modes or both of them. To enable or disable this condition in **MOMENTARY PRESS** page, press  /PART_M to enable / disable "Partial" and  /EXIT_M to enable/disable "Exit".

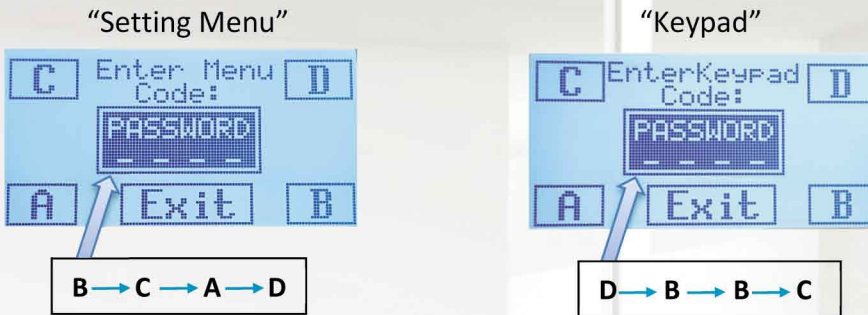


▪ Enable/disable passwords

There are two passwords for security of device. One of them is used to enter to the setting menu and the other one is used to lock keypad's device. To change them, enter "PASSWORD SETUP" page in the setting menu, then press **Partial** /MENU to enable or disable menu password and press **Lock** /KEYPAD for keypad locking.



In the following there is password request page in the next that user need to enter password:



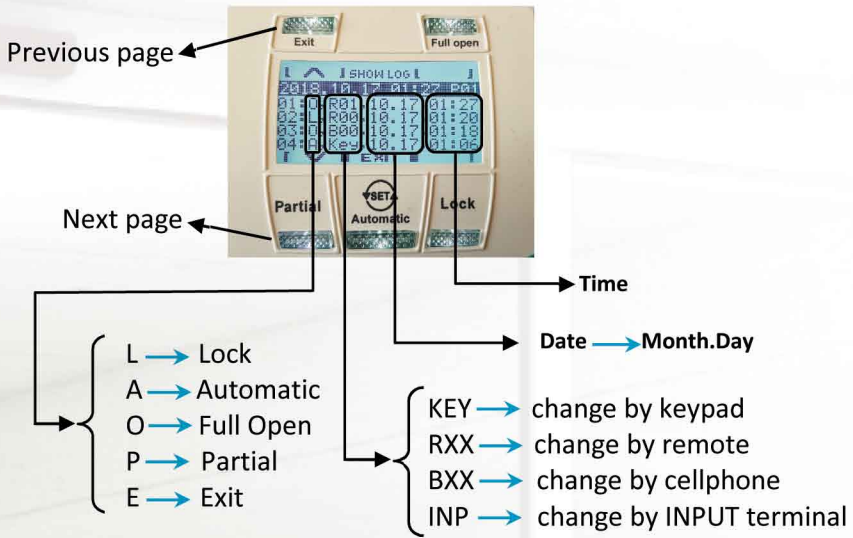
- ✓ In case of device keypad locking, with correct password entering there is 30 second time to change operating mode of door or entering to the setting menu.

▪ Report and set time/date

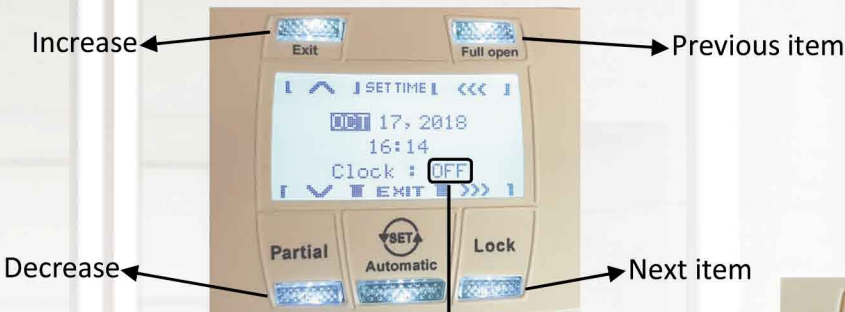
There is a report menu in device to check status of device include system model, number of paired remotes, cellphones, etc. To enter to the report menu choose "REPORT" page in the setting menu. In the following you can also check 50 last change has been made with enter to the "SHOW LOG" page by press **Partial** /LOG in report menu. Its details are shown below:



Digital Selector ST-30



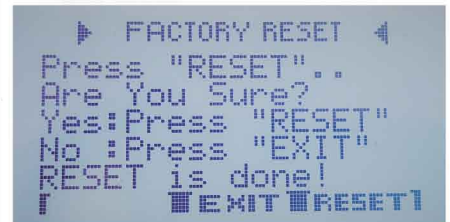
To change current date and time press **LOCK**/TIME in report menu.



In case of "ON" state, every 12 seconds, clock is shown on the display.



- **Factory Reset**
To delete all setting, paired remotes, cellphones and ... from device enter "FACTORY RESET" page in the setting menu then press **LOCK**/RESET twice.





2019-20

WE MUST ALWAYS CONCEIVE OF
AND DEVELOP NEW THINGS.