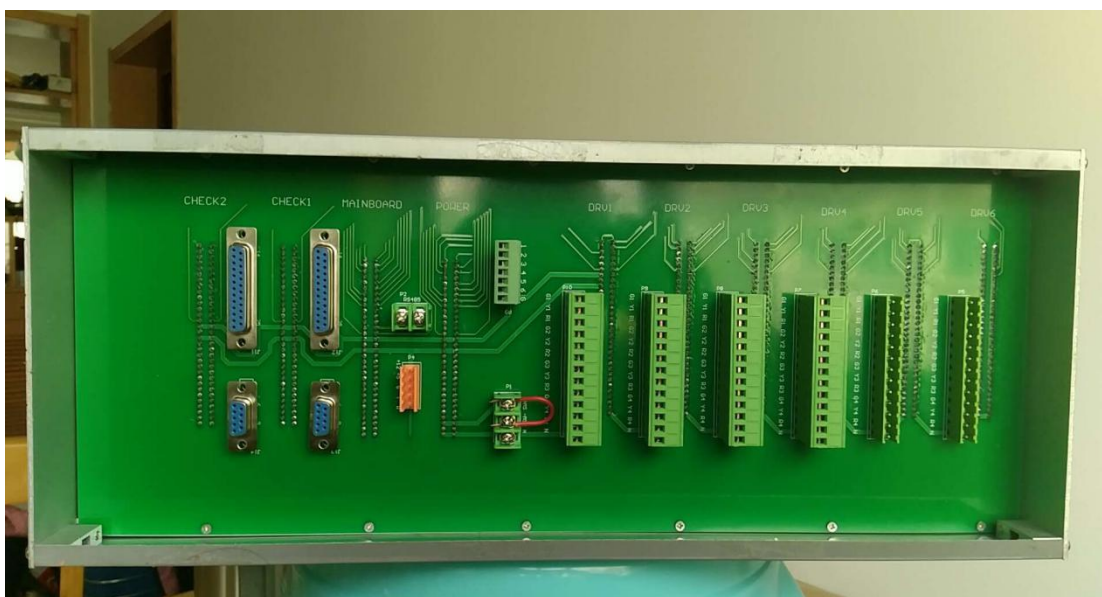
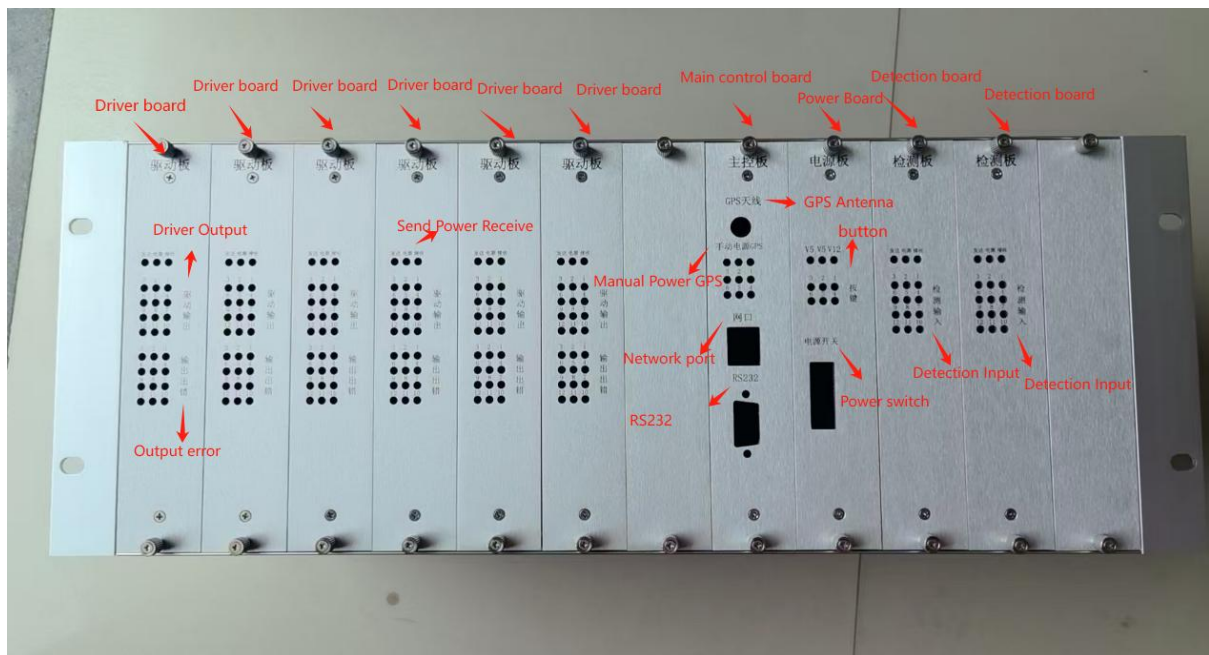






Signal function parameters:

Supports up to 72 outputs;

Support pulse output control mode;

Supports communication output (communication protocol GB2004,



GB2014, Les, Hisense, Siemens or any other optional);

The light array output can be combined in any way. Each of the red, green, and yellow light groups supports up to 8 light panels. For example, when driving straight east-west, the red light can have 1 to 8 light panels set arbitrarily, which are connected in parallel. The same applies to the yellow and green lights, allowing for 1 to 8 light panels each. The logic is clear, making operation simple. If the driver is damaged, replacement is also very convenient;

According to the weekly plan, different schemes can be run every day.

Additional schemes can be run at special times. There are a total of 9 schemes, each scheme has 24 periods, and each period can have 16 different phases running;

It has the function of conflict. When the conflict function is set, if a conflict occurs, it will automatically prompt the location where the conflict occurs and let the user reset it;

It has the function of lamp disk detection, which can detect the good or bad output lamp disk. When the lamp disk is old and light decay occurs, it can detect the abnormality of the lamp disk and remind users to replace it in time;

User operations are logged for reference;

Support adaptive detection function of serial port or parallel port



(hardware support is required);

The traffic light panel and countdown operation of the intersection can be viewed in real time;

System power (except for external load) <20W

Connect the signal to the PC and set the IP address to the same network segment as the signal (default IP address of the signal: 192.168.0.88)

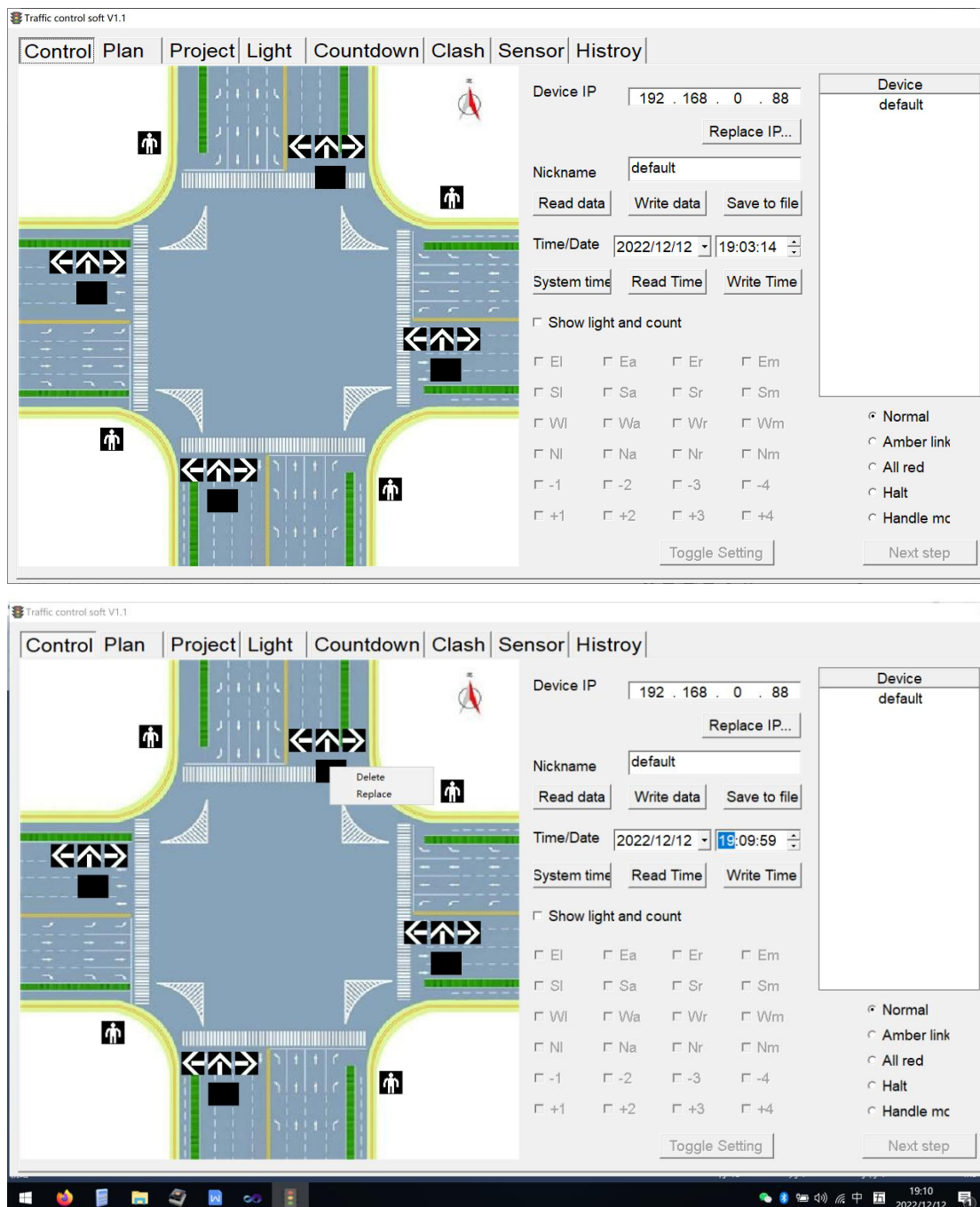
Connection method 1: directly use the network cable to connect the PC and the signal machine, manually set the IP address of the PC to 192.168.0.x (2-255, not 88)

Connection method 2: Use the router, set the network segment of the router to 192.168.0.1, then the signal machine accesses the router, and the PC accesses the router to carry out control

The user's initial superuser name is Admin and the password is Admin. Note the case!

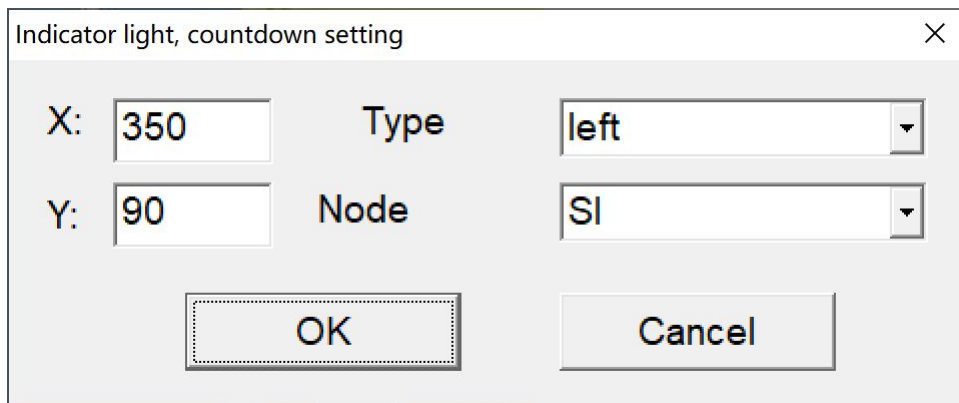
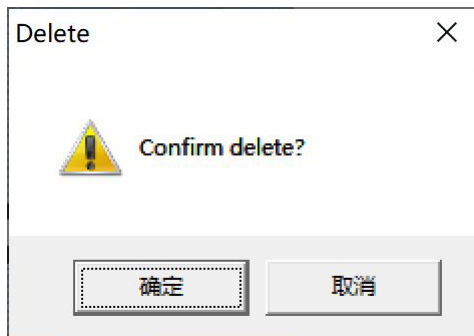
I. Control Settings

1. In the non-display state (the LED light disk and countdown do not display), click the right mouse button after clicking the light disk or countdown icon to appear the delete and modify menu, as shown in the figure

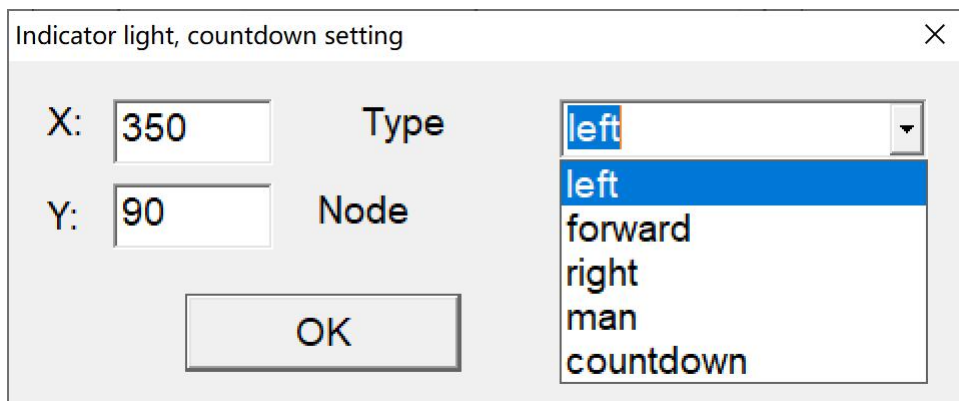


Click "Delete" to display the delete confirmation dialog box. After confirming, delete the selected light disk or countdown, and return after canceling

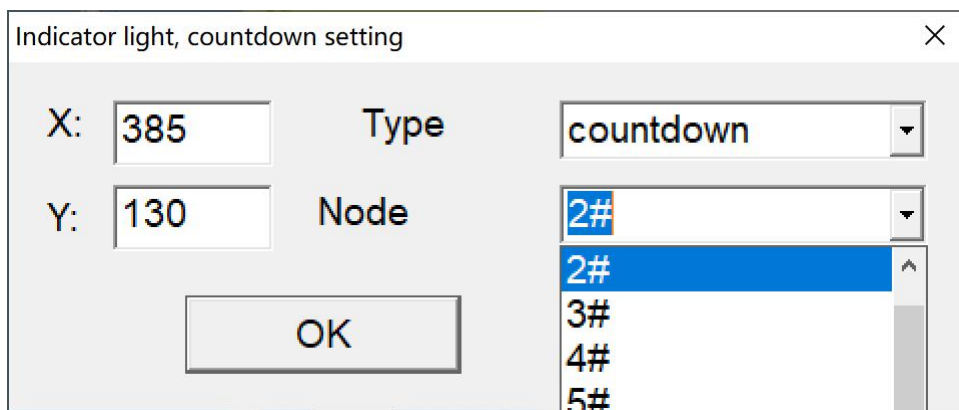
If you choose "Modify," the following image will appear. Modify its X and Y coordinates in the image area, select the type of light panel (left turn, straight ahead, right turn, pedestrian, countdown). When the light panel is selected, the associated node will request which group of light panels to display. If the type chosen is Countdown, it will prompt you to select which group of countdown outputs



Modify the dialog box



Lighting group or countdown type options





The associated light group option for the lamp panel

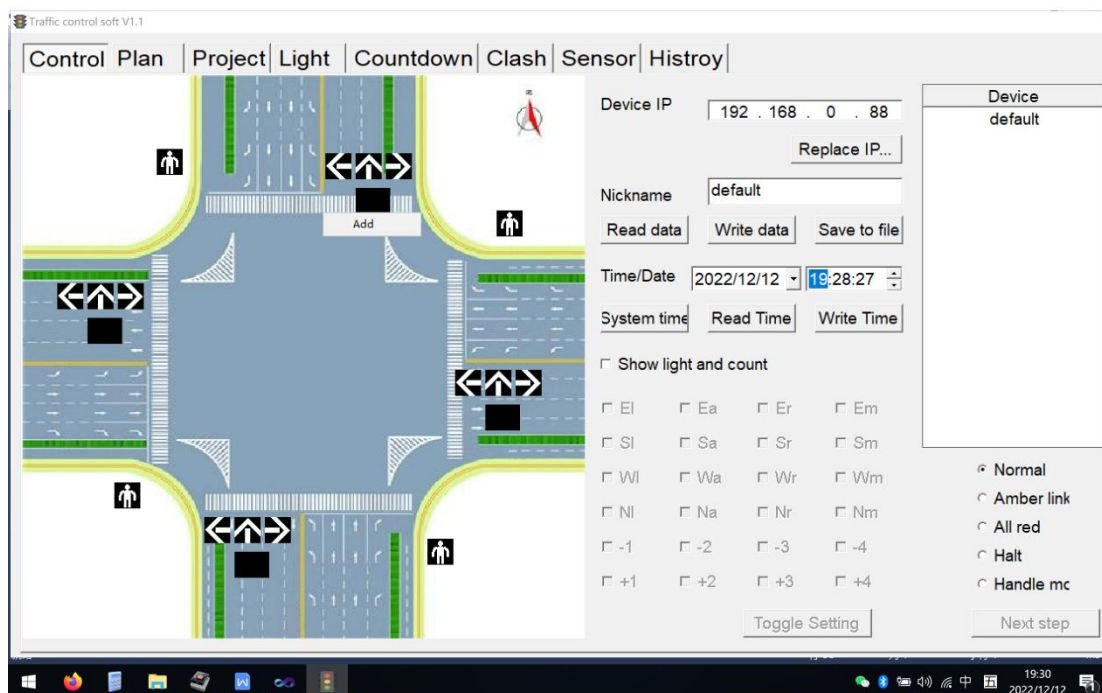
Indicator light, countdown setting

X: Type:

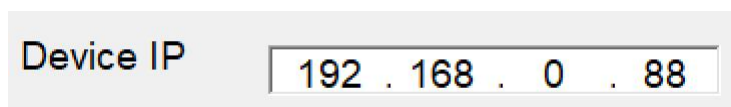
Y: Node:

EI
Ea
Er
Fm

The associated countdown of the countdown



2. In the non-display state (the LED light disk and countdown are not displayed), click the non-light disk or countdown area and right-click to display the add menu, as shown in the figure. If you click add, you can add a light group or countdown in the display area



Device IP, which represents the IP address of the device whose IP needs to be controlled



System time, which means to fill in the current time of the system into the date and time dialog box, can quickly fill in the current time to save the error or mistake caused by manual filling

Read time, which indicates the device time required to read the current IP and fills in the date time dialog box so that users can see whether the time is correct or not

Write time, which means to write the time in the date and time dialog box into the device to change the device time again



Replace device IP

IP 192 . 168 . 0 . 88

Mask 255 . 255 . 255 . 0

Gateway 192 . 168 . 0 . 1

OK Cancel

By modifying the device IP, you can change the IP address of the IP device that needs to be connected to the IP address required as shown in the figure, subnet mask, gateway address, and save the modified content of the device to facilitate network operation in the future

"Read data data" can read out the data of the required IP device from the signal and display it in the interface;

"Write data" can transmit all the device parameters and other information in the current interface into the signal machine for execution as required

"Save as file" can save all the device parameters and other information in the current interface into a file for future use



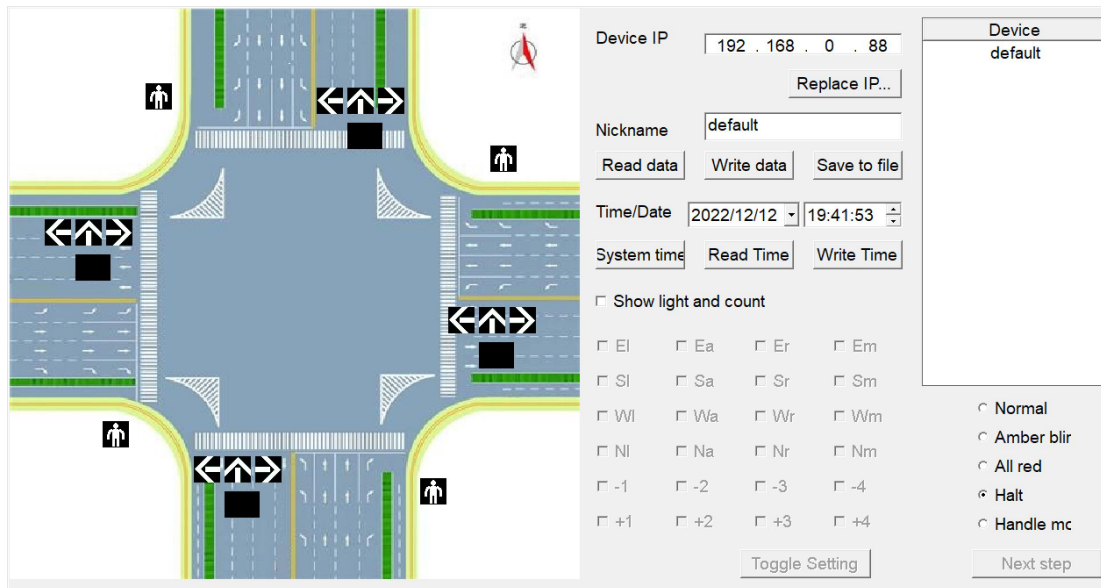
In the case of connecting the signal with the PC, after selecting "display light drive and countdown", the light disk and countdown pattern that need to be displayed can be displayed, as shown in the figure above, pulse flashing and so on can be timely displayed



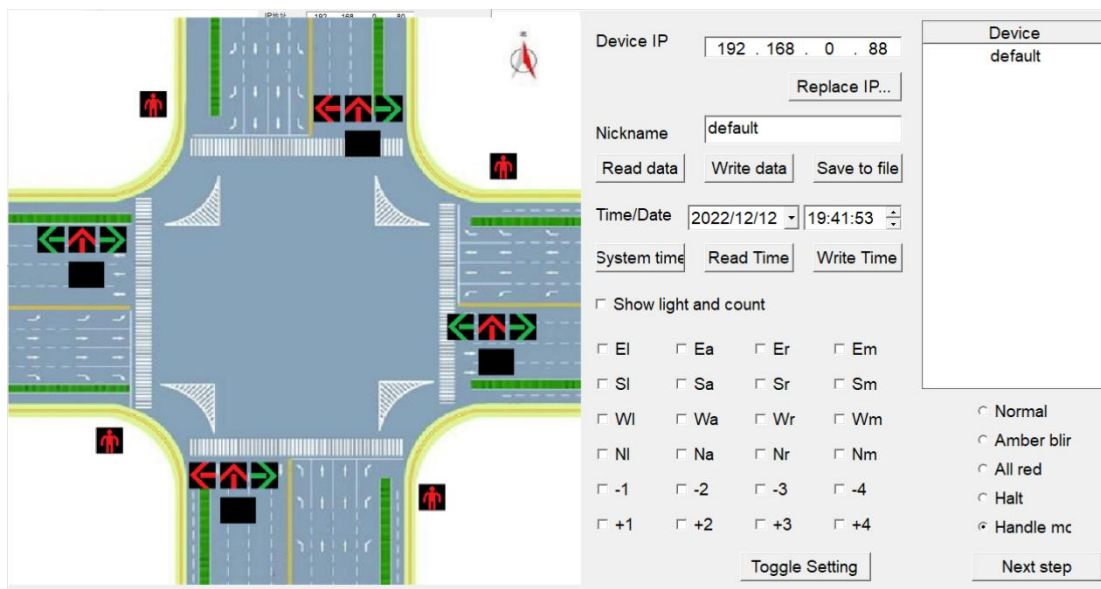
When you select "yellow flash" control in the lower right corner, all the lights will turn yellow flash status in time



When you select "all red" control in the lower right corner, all the light drives will turn into all red status in time



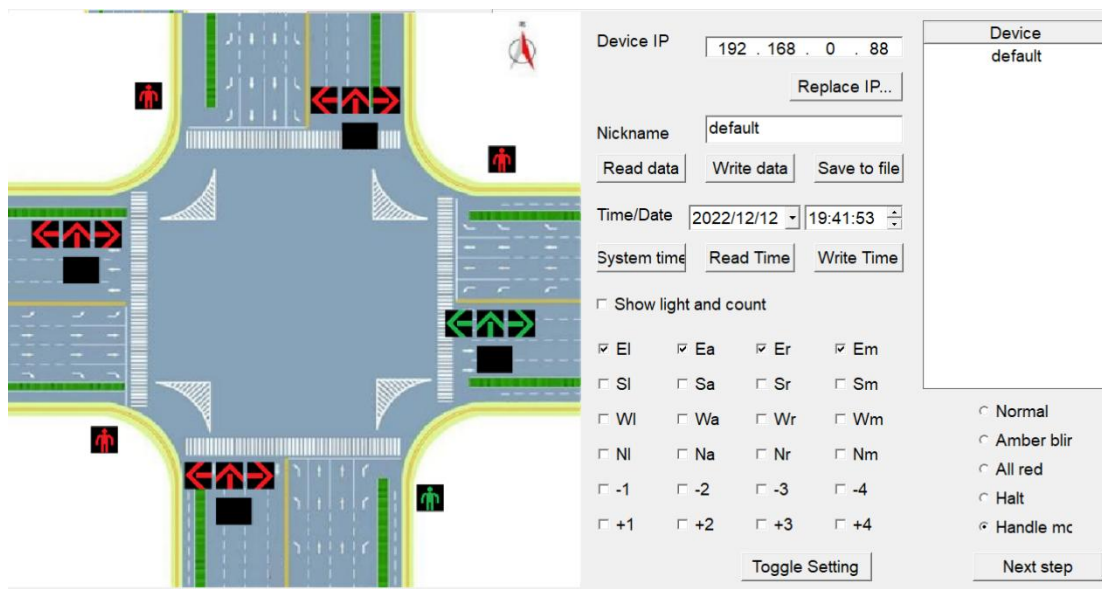
When you select the "Power off" control in the lower right corner, all the lights will turn off in time



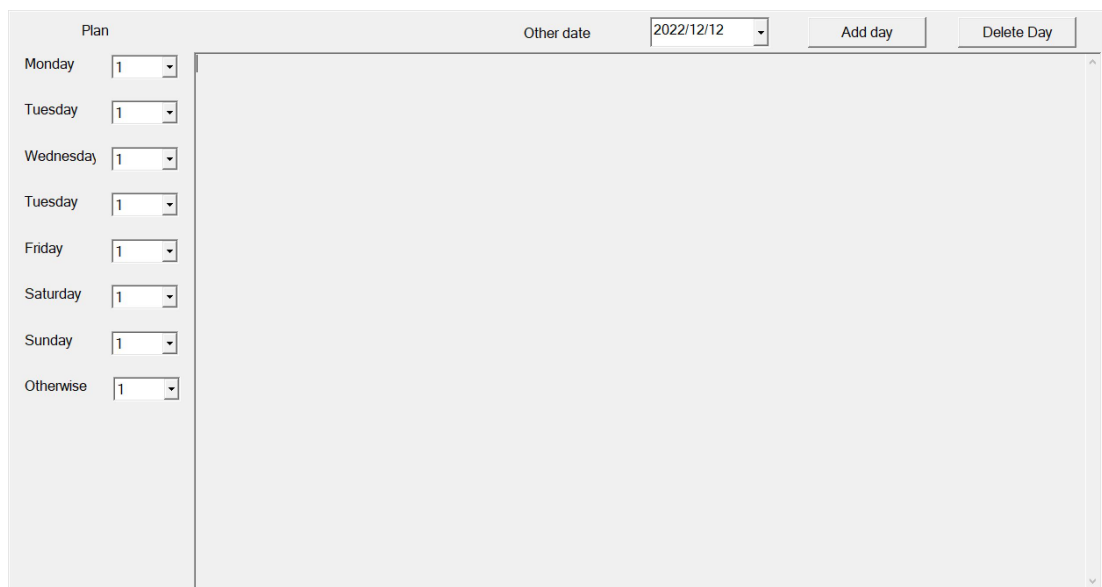
When you select "manual mode" control in the lower right corner, all the light drives will not be switched automatically

At this point, if you click "Next phase", the lamp drive will smoothly transition to the next phase execution, and when the normal phase execution is finished, it will jump back to the first phase

If you click "Phase Direct Switch", the selected phase is smoothly switched to immediately, as shown in the following figure



II. Plan and scheme



The signal machine operation mode can execute different schemes in a week, and a set of scheme plans can be executed on a certain day in a week by selecting different execution schemes, and another scheme can be executed on special dates



Plan	
Monday	1
Tuesday	1
Wednesday	1
Tuesday	1
Friday	1
Saturday	1
Sunday	1
Otherwise	1

Other date	2022/12/12	Add day	Delete Day
------------	---	--	---

This special time and date can be met by adding or removing dates

Other date	2022/12/12
------------	---

2022年12月							
周一	周二	周三	周四	周五	周六	周日	
28	29	30	1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31	1	
2	3	4	5	6	7	8	
今天: 2022/12/12							

Select the specific date to add or delete in the Date dialog box



3. Time period

Project <1>		Group <1>		Copy	Paste	Pass mode										
Nu...	Time	Mode	Gr...	Pa...	Group	Green	Min	Max	Sen...	Nu...	Gr...	M...	A...	All...	R...	闪烁
1	00:00:00	Amber b...	1	1	Ea,Em,Wa,Wm	24	10	99	0	1	3	6	3	0	3	Of...
2	07:00:00	Normal	1	1	El,Er,Sr,Wl,Wr,Nr	20	10	99	0	2	0	0	0	0	0	Of...
3	22:30:00	Amber b...	1	1	Sa,Sm,Na,Nm	26	10	99	0	3	0	0	0	0	0	Of...
4	End				Er,Sl,Sr,Wr,Nl,Nr	22	10	99	0	4	0	0	0	0	0	Of...
										5	0	0	0	0	0	Of...
										6	0	0	0	0	0	Of...
										7	0	0	0	0	0	Of...
										8	0	0	0	0	0	Of...
										9	0	0	0	0	0	Of...
										10	0	0	0	0	0	Of...

Delete Insert
Delete Insert



There are 10 transition scheme numbers, 99 phase combinations and 9 schemes in the time period

Pass mode						
No.	Gr...	M...	A...	Red	R...	Bli...
1	3	6	3	0	3	Of...
2	0	0	0	0	0	Of...
3	0	0	0	0	0	Of...
4	0	0	0	0	0	Of...
5	0	0	0	0	0	Of...
6	0	0	0	0	0	Of...
7	0	0	0	0	0	Of...
8	0	0	0	0	0	Of...
9	0	0	0	0	0	Of...
10	0	0	0	0	0	Of...

The transition can be modified by double-clicking on the scheme in each column (1-10)

Transition programme

×

Green

3

OK

Man link(s)

6

Cancel

Amber(s)

3

All red(s)

0

Red link(s)

3

Link mode

OffOn

You can set the green flash time, pedestrian light flash time, yellow flash time, four-sided red time, red flash time and the way of flashing (half a second on and half a second off or half a second off and half a



second on)

Group

<
1
>

Copy

Paste

Group	Green	Min	Max	Sen...
Ea,Em,Wa,Wm	24	10	99	0
El,Er,Sr,Wl,Wr,Nr	20	10	99	0
Sa,Sm,Na,Nm	26	10	99	0
Er,Sl,Sr,Wr,Nl,Nr	22	10	99	0

Delete

Insert

The phase combinations are shown in the figure. Each phase combination can contain 16 phases, and the lamp group for each phase is set to release, green time, minimum green, maximum green, and associated detector (not used yet)

Delete

Insert



Delete can delete the current selected phase and bring up all of the following for the currently selected phase automatically

Insert automatically inserts a phase that needs to be inserted on top of the phase currently selected

Modify each column by double-clicking, and add the next unused column by double-clicking automatically

It

is

ent to select the combination of light groups, green time, minimum green, maximum green and associated detectors that need to be released in the current phase

You can choose the left or right button to perform an ordered phase change or enter a number directly in the edit box to jump immediately

For some similar phase groups, you can complete the process by copying and pasting them together with a few modifications

Select overall copy in the phase group that needs to be copied, and then perform the operation by pasting overall

Enter the required phase group, and at this time press paste all to copy the previous phase group.



Group	Green	Min	Max	Sen...
Ea,Em,Wa,Wm	24	10	99	0
El,Er,Sr,Wl,Wr,Nr	20	10	99	0
Sa,Sm,Na,Nm	26	10	99	0
Er,Sl,Sr,Wr,Nl,Nr	22	10	99	0

Project

No.	Time	Mode	Gr...	Pa...
1	00:00:00	Amber b...	1	1
2	07:00:00	Normal	1	1
3	22:30:00	Amber b...	1	1
4		End		

Delete
Insert

There are 9 schemes numbered from 1 to 9 in the scheme, and each scheme supports 24 time periods. The operation of switching, deleting and inserting scheme number is the same as the phase combination



Double-click the selected time period

Work programme

Start	0:00:00	OK	
Mode	Amber blink		
Group	1		Cancel
Pass	1		

As shown in the figure, it includes the starting time, the combination of working modes and phases, and

Work programme

Start	0:00:00	OK	
Mode	Amber blink		Cancel
Group	End		
Pass	Normal		

Touch
Green road
Halt
Amber blink
All red
Sensor

the transition scheme

The working mode includes periodic, touch button, time green wave, turn off the light, yellow flash, full red, and sensor detection

A fixed cycle is a regular rotation in time;



The touch button is the touch pedestrian control mode. When phase 1 is in, it keeps waiting for the trigger of the touch button. When the button is pressed, it continues to execute all the current phases in sequence and then stops at phase 1 to continue waiting for the trigger;

The mandatory time is mainly used for the occasions where the green wave band is passed through the time, such as when the distance between two intersections is short. The passing time algorithm (accurate to seconds) is used for mandatory calibration. When the previous phase switches to the mandatory mode, if the time difference is less than one cycle, the yellow flash will be used to replace the unknown release scheme;

Inductive detection, not used yet

Group	Green	Min	Max	Sen...
Ea,Em,Wa,Wm	24	10	99	0
El,Er,Sr,Wl,Wr,Nr	20	10	99	0
Sa,Sm,Na,Nm	26	10	99	0
Er,Sl,Sr,Wr,Nl,Nr	22	10	99	0

Work programme

Start

7:00:00

OK

Mode

Normal

Cancel

Group

4

Pass

1

When the work phase combination is input, the input needs to execute the phase group, and the subsequent phase group will be switched immediately to facilitate the view of the specific implementation plan of the phase group



4. Combination of light groups

Name	Green	Amber	Red
El	1	2	3
Ea	4	5	6
Er	7	8	9
Em	10		12
Sl	13	14	15
Sa	16	17	18
Sr	19	20	21
Sm	22		24
Wl	25	26	27
Wa	28	29	30
Wr	31	32	33
Wm	34		36
Nl	37	38	39
Na	40	41	42
Nr	43	44	45
Nm	46		48
-1	49	50	51
-2	52	53	54
-3	55	56	57
-4	58		60
+1	61	62	63
+2	64	65	66
+3	67	68	69
+4	70		72
Keep			

Light No. El Lamp Green

☒ 1 Output
 ☐ 13 Output
 ☐ 25 Output
 ☐ 37 Output
 ☐ 49 Output
 ☐ 61 Output
 ☐ 2 Output
 ☐ 14 Output
 ☐ 26 Output
 ☐ 38 Output
 ☐ 50 Output
 ☐ 62 Output
 ☐ 3 Output
 ☐ 15 Output
 ☐ 27 Output
 ☐ 39 Output
 ☐ 51 Output
 ☐ 63 Output
 ☐ 4 Output
 ☐ 16 Output
 ☐ 28 Output
 ☐ 40 Output
 ☐ 52 Output
 ☐ 64 Output
 ☐ 5 Output
 ☐ 17 Output
 ☐ 29 Output
 ☐ 41 Output
 ☐ 53 Output
 ☐ 65 Output
 ☐ 6 Output
 ☐ 18 Output
 ☐ 30 Output
 ☐ 42 Output
 ☐ 54 Output
 ☐ 66 Output
 ☐ 7 Output
 ☐ 19 Output
 ☐ 31 Output
 ☐ 43 Output
 ☐ 55 Output
 ☐ 67 Output
 ☐ 8 Output
 ☐ 20 Output
 ☐ 32 Output
 ☐ 44 Output
 ☐ 56 Output
 ☐ 68 Output
 ☐ 9 Output
 ☐ 21 Output
 ☐ 33 Output
 ☐ 45 Output
 ☐ 57 Output
 ☐ 69 Output
 ☐ 10 Output
 ☐ 22 Output
 ☐ 34 Output
 ☐ 46 Output
 ☐ 58 Output
 ☐ 70 Output
 ☐ 11 Output
 ☐ 23 Output
 ☐ 35 Output
 ☐ 47 Output
 ☐ 59 Output
 ☐ 71 Output
 ☐ 12 Output
 ☐ 24 Output
 ☐ 36 Output
 ☐ 48 Output
 ☐ 60 Output
 ☐ 72 Output

Replace
Clear Group
Clear All

The state of each lamp group can be set, and each lamp group can be composed of red, green and yellow (the lamp group without yellow is the pedestrian lamp group), and the output combination of red, green and yellow lights in each lamp group can be set;

Each color of each group of lights can set up a maximum of 8 signal light outputs. The output of the same color of the same group of lights is equivalent to the output of the lamp head connected together. For example, if there are 8 sets of outputs for the east straight green light, these 8 outputs will be in the state of power output when the east straight green light is on;

Double-click the selected light group column to change the name of the light group;

When a certain output is used by one lamp group and other lamp groups are selected, the output will be gray and not allowed to be selected. Unless the corresponding output of the previous lamp group is cancelled, the output will no longer be allowed to operate, ensuring that only one output can be connected to one lamp group;



5. Countdown Settings

Countdown

Baud

9600

☐ Lower than the displ:

Protocol

GB2014

Lower second

9

Pulsecount

Pulse second

9

Pulse width(50ms)

0

Number	Major	Minor
1	Ea	El
2	Sa	Sl
3	Wa	Wl
4	Na	Nl
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Major light

☐ El
 ☒ Ea
 ☐ Er
 ☐ Em
 ☐ Sl
 ☐ Sa
 ☐ Sr
 ☐ Sm
 ☐ Wl
 ☐ Wa
 ☐ Wr
 ☐ Wm
 ☐ Nl
 ☐ Na
 ☐ Nr
 ☐ Nm
 ☐ -1
 ☐ -2
 ☐ -3
 ☐ -4
 ☐ +1
 ☐ +2
 ☐ +3
 ☐ +4

Minor light

☒ El
 ☐ Ea
 ☐ Er
 ☐ Em
 ☐ Sl
 ☐ Sa
 ☐ Sr
 ☐ Sm
 ☐ Wl
 ☐ Wa
 ☐ Wr
 ☐ Wm
 ☐ Nl
 ☐ Na
 ☐ Nr
 ☐ Nm
 ☐ -1
 ☐ -2
 ☐ -3
 ☐ -4
 ☐ +1
 ☐ +2
 ☐ +3
 ☐ +4

Countdown

1

Clear

Replace

This signal can support 16 different addresses of countdown;

Each countdown can support the combination output of main and auxiliary lights. For example, when going straight, it outputs green; when turning left, it also outputs green; when going straight and turning left at the same time, it first outputs straight. This straight is called the main light group, and the left turn is called the auxiliary light group.

When a certain countdown is selected, the main lamp group and the auxiliary lamp group can automatically output the current countdown of the main lamp group and the auxiliary lamp group;

The communication countdown can select the baud rate and use protocols (currently GB2014, GB2004, Les, Hisense, Siemens, etc.). The countdown can be controlled by selecting the time display switch below



this setting, so that it does not display when it is higher than this setting, but only when it is lower than this setting

The pulse countdown can set the pulse width and pulse countdown time. If the pulse width is 0, no pulse output is performed

VI. Conflict Settings

Name	Clash
EI	
Ea	Sa,Na
Er	
Em	
SI	
Sa	Ea,Wa
Sr	
Sm	
WI	
Wa	Sa,Na
Wr	
Wm	
NI	
Na	Ea,Wa
Nr	
Nm	
-1	
-2	
-3	
-4	
+1	
+2	
+3	
+4	

Light No. EI

☐ EI	☐ Ea	☐ Er	☐ Em
☐ SI	☐ Sa	☐ Sr	☐ Sm
☐ WI	☐ Wa	☐ Wr	☐ Wm
☐ NI	☐ Na	☐ Nr	☐ Nm
☐ -1	☐ -2	☐ -3	☐ -4
☐ +1	☐ +2	☐ +3	☐ +4

Replace
Clear Group
Clear All

The corresponding conflicting light groups can be set. If the conflicting light groups are set, if a conflict occurs during phase control, the conflicting light group prompt will appear when the data is written to the



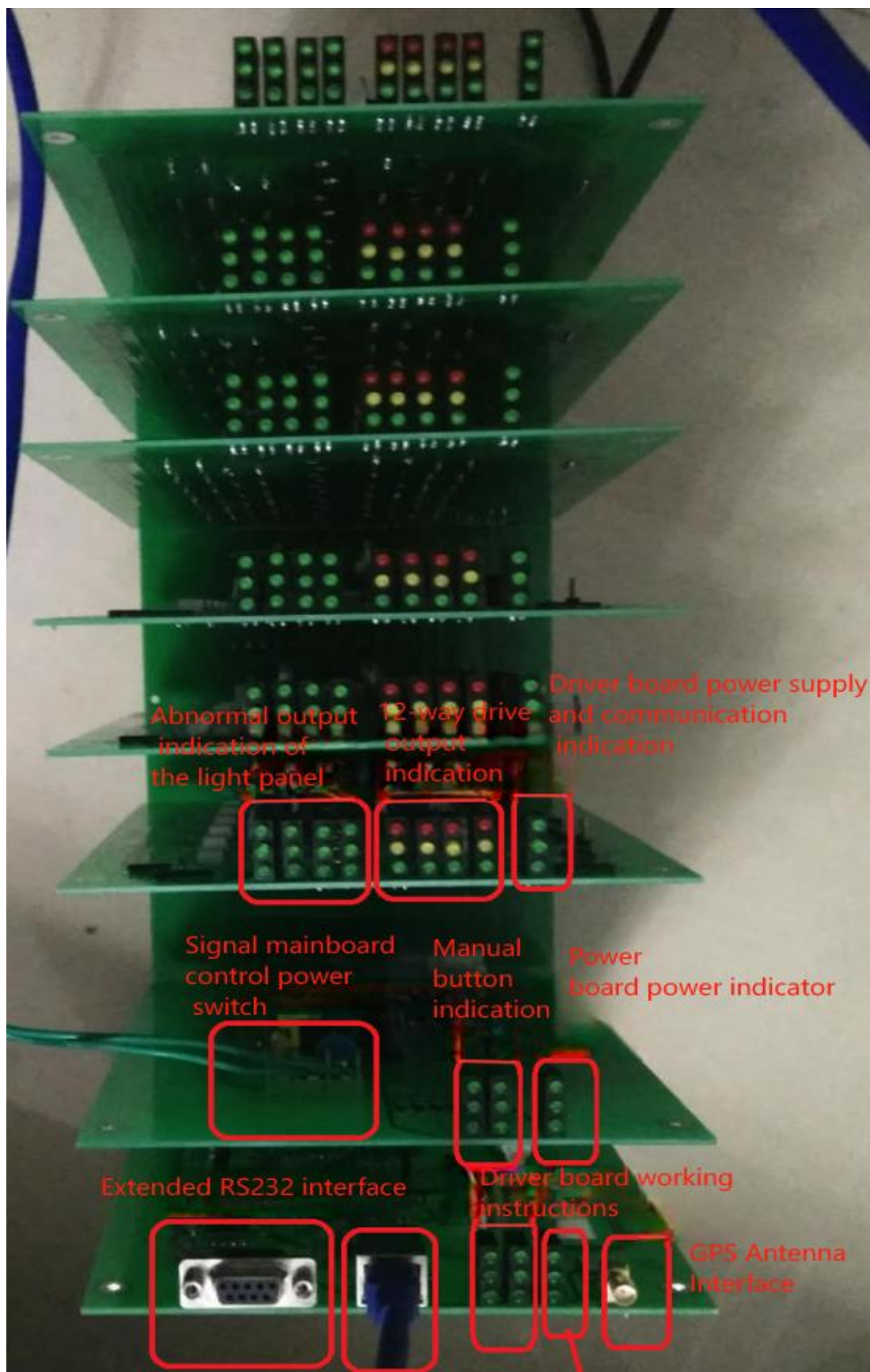
signal machine

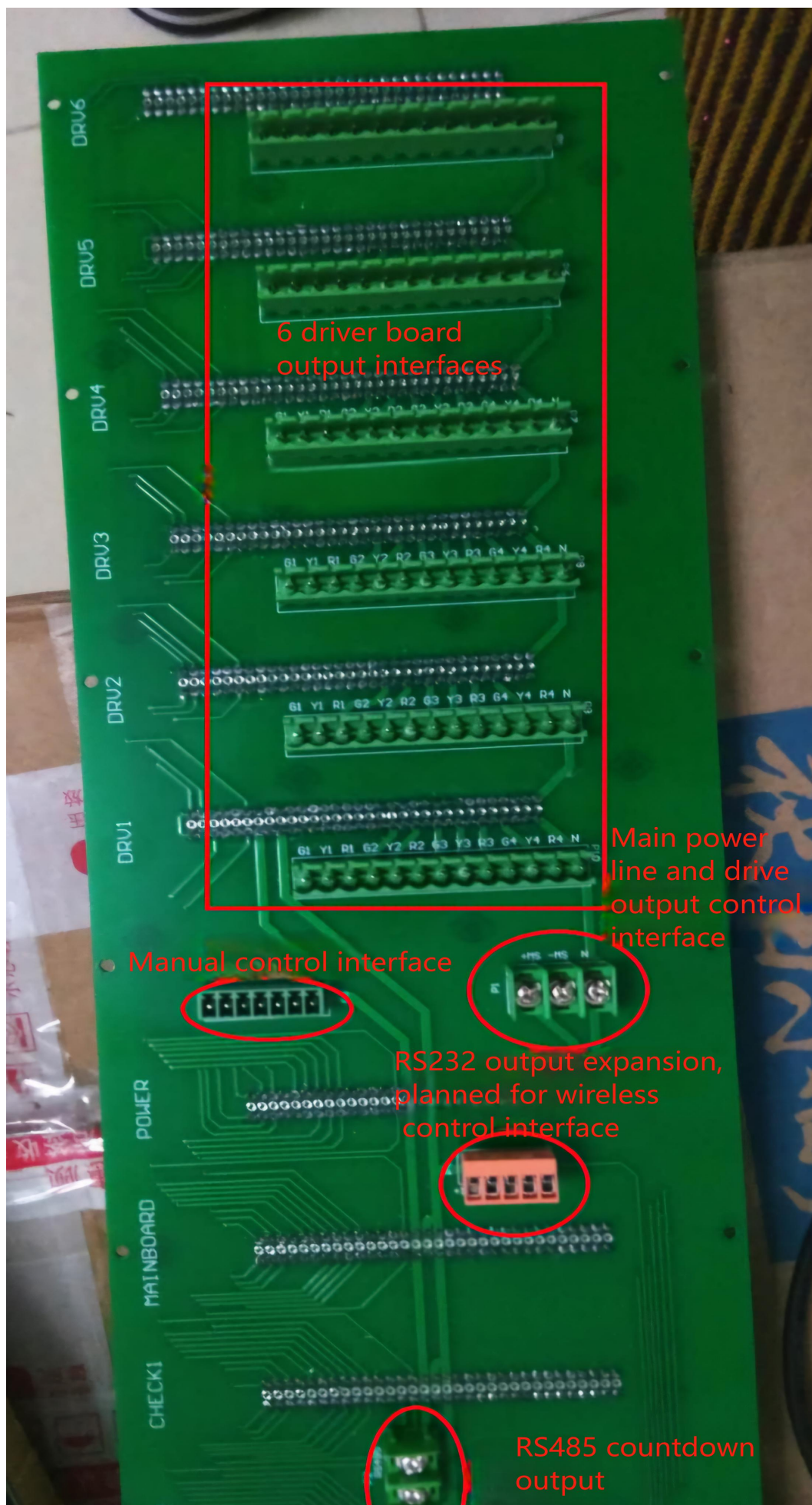


7.Log function

The log function of the signal machine can be read to know what operations the signal machine has performed. After the log is cleared, the record of the last time the log is cleared always exists to prevent malicious software damage to the signal machine









left-to-right

Key 1: Reset

KEY2: Touch button

KEY3: Next phase

KEY4: Manual enable

KEY5: Control (only when closed, other controls are not valid, touch is not controlled)

KEY6: Yellow flash