



Networking Intelligent Traffic Signal Controller XHJ-AW-GA-FMADDN

Instruction Manual





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1. Product Functions and Technical Features:

- 1) Built-in central control system to ensure work stability;
- 2) 2*48 work periods for workday and holiday setting;
- 3) Easy for maintenance and function extension by modular design;
- 4) Input AC110V and AC220V, Can be changed by the switch;
- 5) Yellow flashing or power off at night can be set;
- 6) Adopt RS-232 or LAN port to communicate with upper computer;
- 7) 32 working menus used for any period (among 1~30 numbers customs can set it by choice) ;
- 8) The flashing state, frequency and time of each green signal light can be set or adjusted;
- 9) It can modify the current pace of running time in the running state immediately;
- 10) Full red, yellow flashing, step by step manual, jump in the manual, remote manual function (optional) ;
- 11) Be equipped with the hardware fault testing function (Red Light fails, Green lights up test),down grade to Yellow flash status and cut down the Red&Green light power supply when the fault happens.(Optional)
- 12) The output part adopts zero-test technology, Change of state is under zero state switch in communication, Make the drive more safe and reliable;
- 13) Each output all the way with independent lightning protection circuit;



14) Equipped with Installation testing capabilities and it can be used to test if each light is correctly installed.

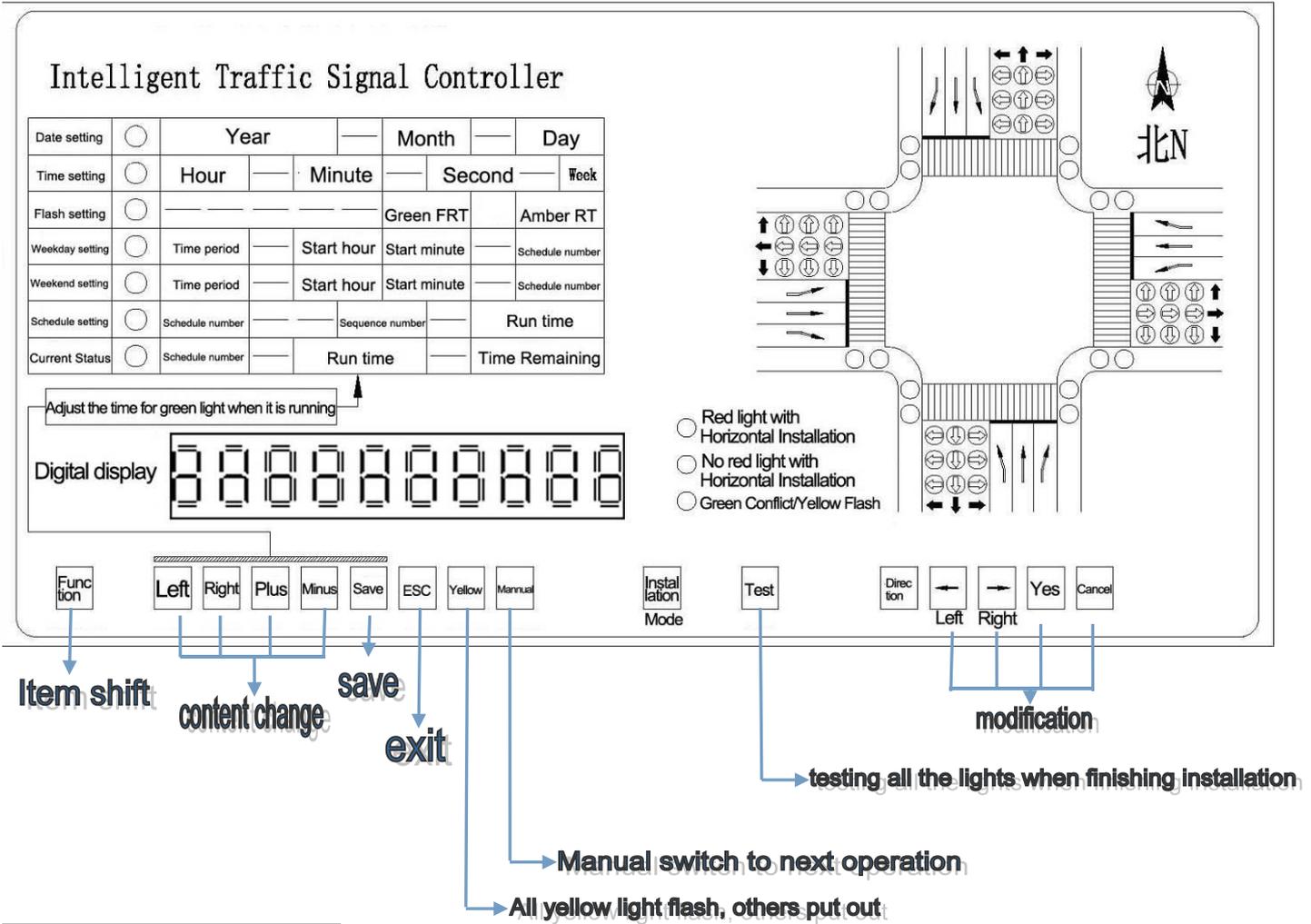
15) 30 menus can be used for backup and recovery;

16) The setup software can operated offline, Project data can be stored on the computer and can be copied.

2. Technical Parameters:

| Items | Technical Parameters |
|---|--|
| Executive Standard | GB25280-2010 |
| Working Voltage | AC110V/220V±20% (changed by switch) |
| Working Frequency | 47Hz~63Hz |
| No-load power | ≤15W |
| The whole controller rated load power | 2200W |
| Motor operation sequence (special timing state should be statement before production) | all Red(can setup) →green light→green flash can setup) →yellow light→Red light |
| Pedestrian signal operation sequence | all Red(can setup) →green light→Green flash(can setup)→Red light |
| Rated drive current in each way | 3A |
| surge current in each way | ≥100A |
| Maximum independent output channels | 44 |
| Maximum independent phase | 16 |
| Adjustable menus | 32 |
| Can be setup menus number | 30 |
| The largest number of each menu | 24 |
| The largest number of timers in each day | 48 |
| Running time in each step | 1~255 |
| Full red transition time | 0~5S |
| Yellow light transition time | 1~9S |
| Green flashing time | 0~9S |
| Operational Temperature Range | -40°C~+80°C |
| Relative Humidity | <95% |
| Setting Saving Time(the electricity was cut off) | 10 years |
| Time Error | Error/year<2.5 minutes (25±1°C) |
| Inner Cabinet Dimension | |
| Outer Cabinet Dimension | |

3. Operation Panel button function introduction

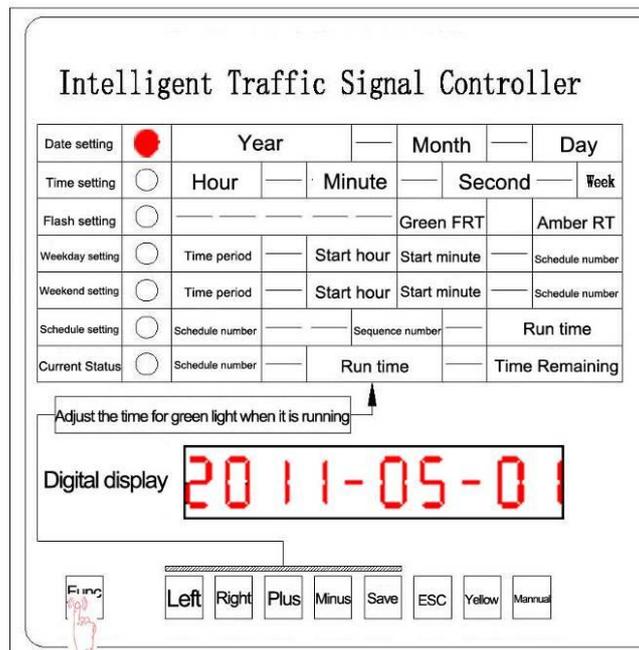


4. Setting Instructions

4.1 Date Setting

Press Function button to date setting and the digital tube will display the current date. Press the Plus and Minus, the cursor will be moved to the digital which you want to modify. Press SAVE to save the plane after the completion of the modified, if press Exist, the current setting cannot be saved.

Press Function button, we will move to the next stage- time setting:



4.2 Time Setting:

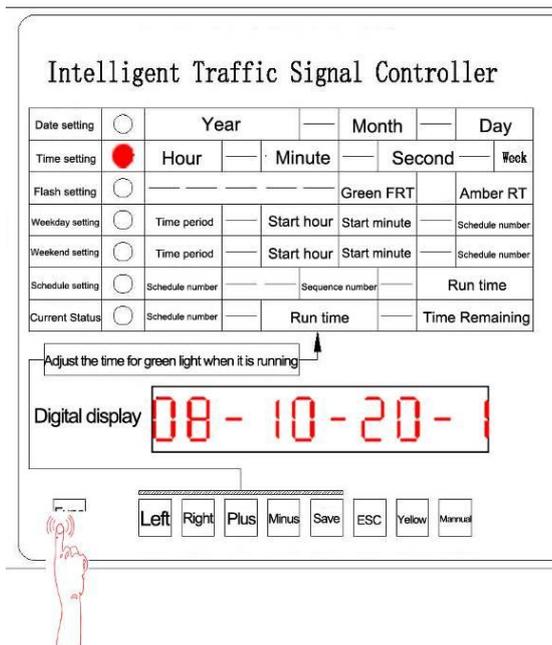
Press Function to time setting. When the indicator light is on, the digital tube will display the current time (Hour, minute, second, day



of the week).

Press the Plus and Minus to change the flashing digital, Press SAVE to save the plane after the completion of the modified, if press Exist, the current setting cannot be saved.

Press Function to move to next set—Flash setting/ Transition state parameter Settings:



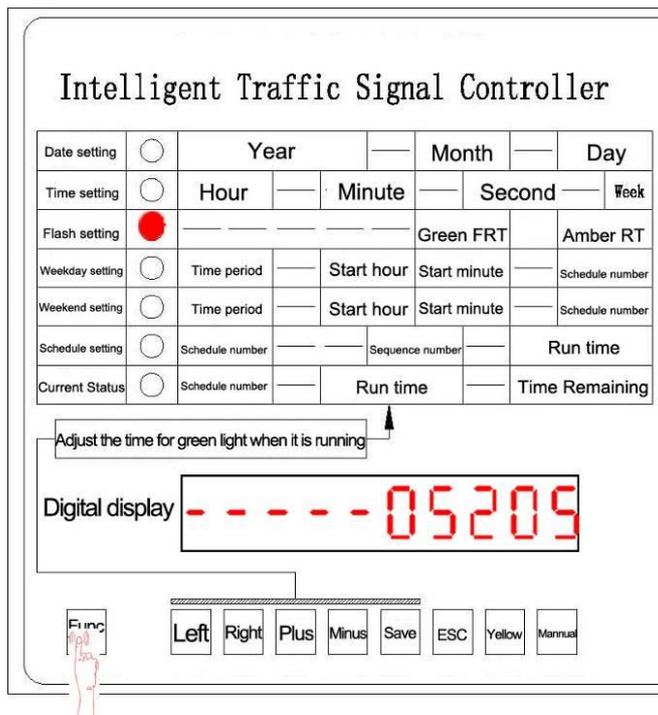
4.3 Transition state parameter Setting

Press Function to enter into the transition state parameter Settings. Here we can set the green flashing time, the transition time of full red and yellow, after the indicator light is on, The digital tube will display the current flash time. Press the Plus and Minus to modify the flashing time, Press SAVE to save the setting after the completion of the modified, if press Exist, the current setting cannot be saved.

Press Function can be moved to next setting—workday plan setting:

Note: we can set the lights expected to be on the right simulated intersection.

direction stands for direction, Left and Right can be used to choose the light, Yes means ok, No means this light will be not set.:



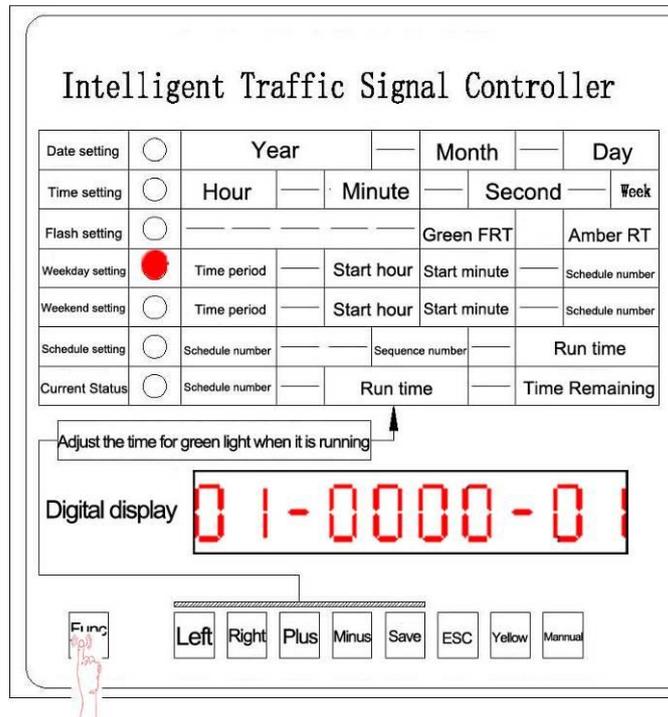
4.4 Weekday scheme setting

Press Function button to enter the weekday scheme settings, The running time scheme can be set from every Monday to Friday. We can



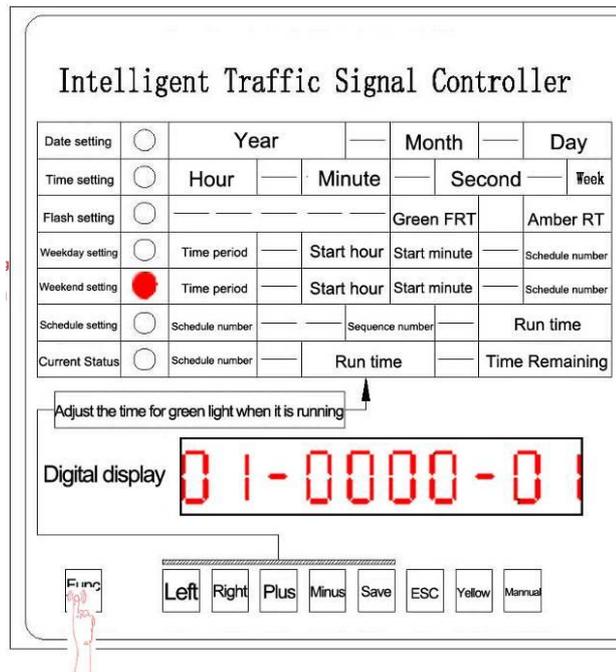
choose any schedule number that is set by “schedule setting”. 48 time periods can be set every day. After the indicator is on, the digits tube will display the current flashing time. We can modify the flashing digital through the Plus and Minus button, and press the left and right button can move the cursor to modify the digital.

Note : we can't modify the setting time at the first period time, when the time was set to 24:00, that means the period time has been finished. After modification, , press the save button to save it. If you press the Exist button, the current setting won't be saved. Press the function key to enter the next state of holidays scheme settings.



4.5 Weekend scheme settings

Press the function button to enter the holidays scheme settings, the period time scheme can be set from Saturday and Sunday (you can set up to 48 period time at most) after the indicator lightens, The digits tube will display the current flashing time. We can modify the flashing digital through the Plus and Minus button, and press the left and right button can move the cursor to modify the digital. Note : we can't modify the setting time at the first period time, when the time was set to 24:00, that means the period time has been finished. After modification, , press the save button to save it. If you press the Exist button to exit current settings (non-preservation), Press the function key to enter the next state of holidays scheme settings.



4.6 Schedule Setting

Press the Function button to enter the schedule setting. The digits tube will be displays the digital presentation from left to right.



Menu number (we can set up to 30 sets programs at most). Step (set up to 24 steps at most), and the current steps duration, when setting this items, we can set the green light for performed requirements as per the right side of simulated intersection, Direction, left and right are choose to the corresponding light, Yes means selected the light, By setting the current time step continuously, which can be set the running time for traffic signal light, after finished that, press save key to enter the next step settings by automatically, the same setting methods as above, and so on. When the steps time is set up to 0, press save key, and the current menu will be automatic end, then it will be back to the current operating state.

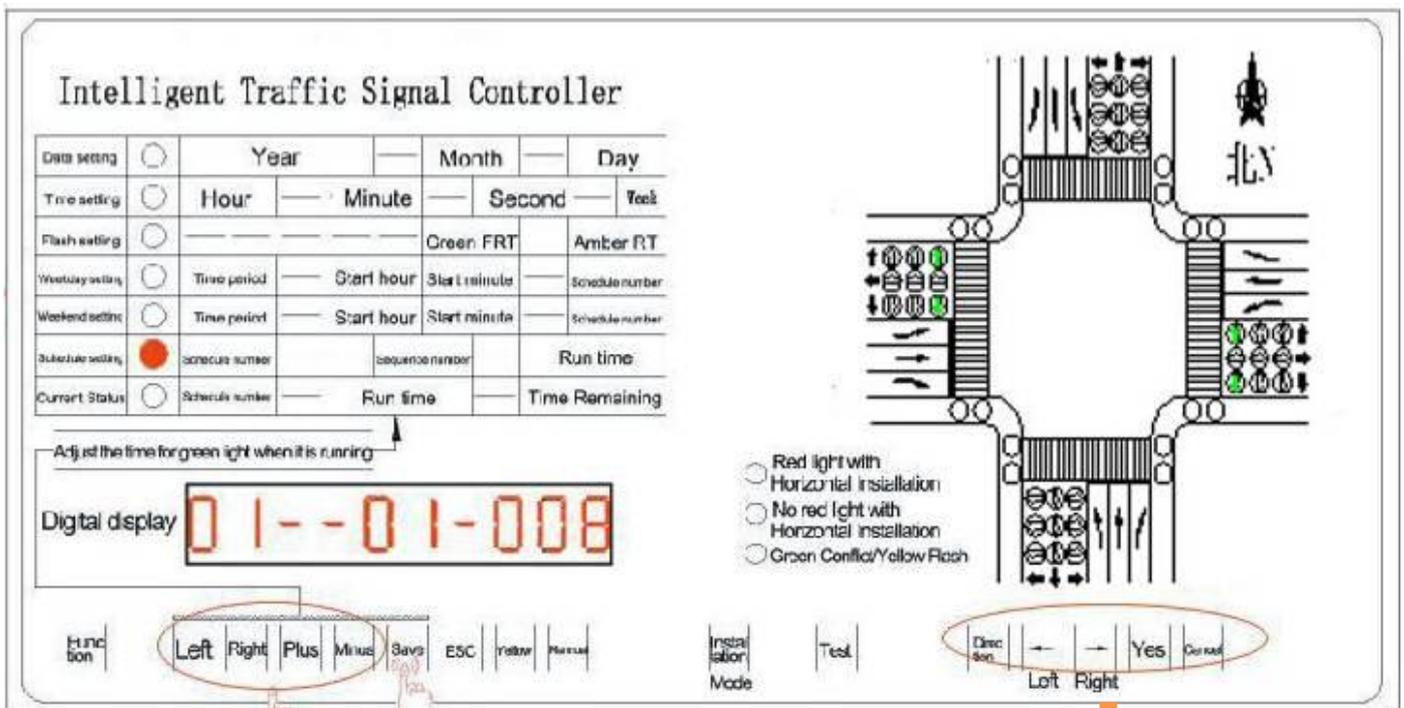
After changed the menu, we can modify the other menu, Please kindly see the notes as below,

- 1, If the traffic signal light have conflict on release, such as green conflict /yellow flashing lights at this time, which can't be saved, you need to choose the release traffic signal light again.
- 2, The total of menu number is 32 , you can set up it by yourself from 1-30, and the number of 31 is fixed yellow flashing time, the Number of 32 menu means the off menu, while the number 31 and number 32 menu can be exchanged between weekday scheme settings and holidays scheme settings.

The first step:

Press the left and right buttons to modify the digital as your needs, and press the plus and minus button to choose any digital what you want. For example, you can change the original set time 9s to 8s or others. After set as the picture (the digital indicate the numbers), we can move on next setup.

1) to set Schedule 01 as follows



First step:
 Press the left and right buttons to modify the digital as your needs, and press the plus and minus button to choose any digital what you want. Forexample, you can change the original setted time 9s to 8s or others. After setted as the picture (the digital indicate the numbers), we can move on next

Third step:
 After finished the second step for green light release state settings, pls refer to the picture , then pressing the save key. And the series number will be add 1 by automaticly. Then move on next step.

Second step:
 Through the direction keys on the panel to choose east, south ,west and north, and pressing the ←→ button to choose the direction for green light, press the YES or No key to modify whether the green light lighten on or not . but just need to set up the green light



Intelligent Traffic Signal Controller

| | | | | | |
|------------------|----------------------------------|-----------------|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | Month | Day | |
| Time setting | <input type="radio"/> | Hour | Minute | Second | Week |
| Flash setting | <input type="radio"/> | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | Schedule number | Sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | Run time | Time Remaining | |

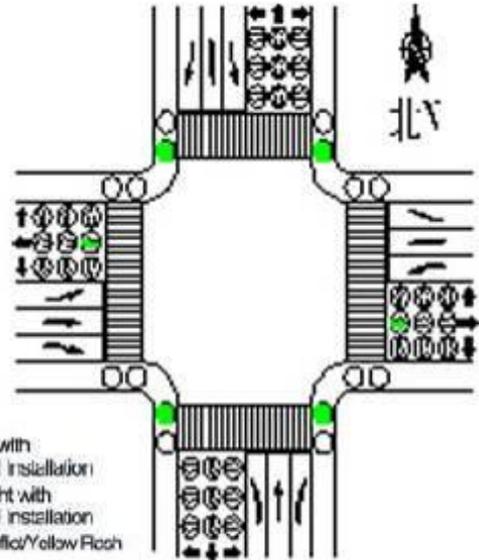
Adjust the time for green light when it is running

Digital display 01--02-008

Function Left Right Plus Minus Save ESC Yellow Manual

Installation Mode Test

Direction Left Right Yes Cancel



- Red light with Horizontal Installation
- No red light with Horizontal Installation
- Green Conflict/Yellow Flash

Intelligent Traffic Signal Controller

| | | | | | |
|------------------|----------------------------------|-----------------|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | Month | Day | |
| Time setting | <input type="radio"/> | Hour | Minute | Second | Week |
| Flash setting | <input type="radio"/> | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | Schedule number | Sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | Run time | Time Remaining | |

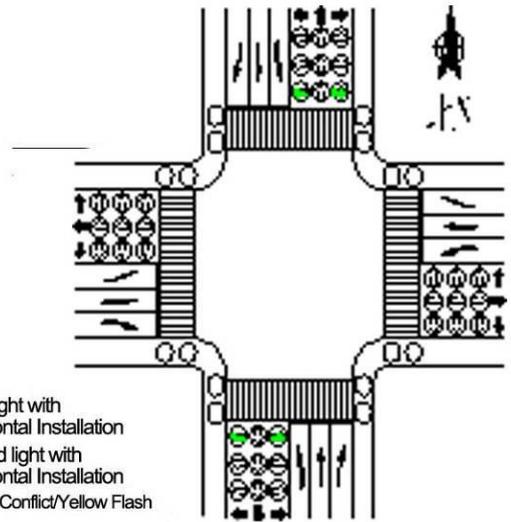
Adjust the time for green light when it is running

Digital display 01--03-008

Function Left Right Plus Minus Save ESC Yellow Manual

Installation Mode Test

Direction Left Right Yes Cancel



- Red light with Horizontal Installation
- No red light with Horizontal Installation
- Green Conflict/Yellow Flash



Intelligent Traffic Signal Controller

| | | | | | | |
|------------------|----------------------------------|-----------------|---|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | — | Month | — | Day |
| Time setting | <input type="radio"/> | Hour | — | Minute | — | Second — Week |
| Flash setting | <input type="radio"/> | | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | — | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | — | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | Schedule number | — | Sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | — | Run time | Time Remaining | |

Adjust the time for green light when it is running

Digital display **01--04-008**

Function: Left, Right, Plus, Minus, Save, ESC, Yellow, Manual

Installation Mode: Test

Direction: Left, Right, Yes, Cancel

2) To set Schedule 02 as follows

Intelligent Traffic Signal Controller

| | | | | | | |
|------------------|----------------------------------|-----------------|---|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | — | Month | — | Day |
| Time setting | <input type="radio"/> | Hour | — | Minute | — | Second — Week |
| Flash setting | <input type="radio"/> | | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | — | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | — | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | Schedule number | — | Sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | — | Run time | Time Remaining | |

Adjust the time for green light when it is running

Digital display **02--01-010**

Function: Left, Right, Plus, Minus, Save, ESC, Yellow, Manual

Installation Mode: Test

Direction: Left, Right, Yes, Cancel



Intelligent Traffic Signal Controller

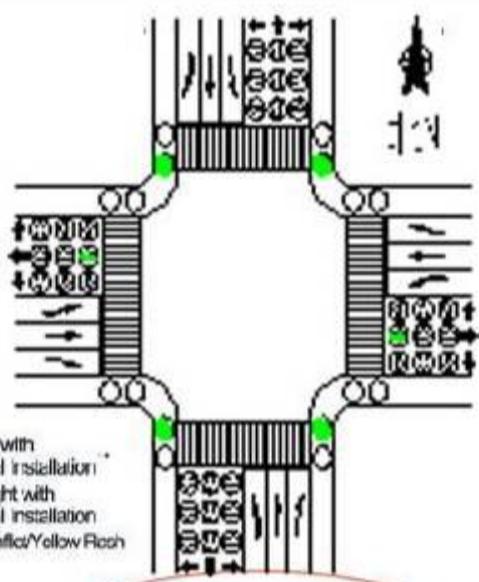
| | | | | | |
|------------------|----------------------------------|-----------------|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | Month | Day | |
| Time setting | <input type="radio"/> | Hour | Minute | Second | Test |
| Flash setting | <input type="radio"/> | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | schedule number | sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | Run time | Time Remaining | |

Adjust the time for green light when it is running

Digital display **02--02-010**

Function: Left, Right, Plus, Minus, Save, ESC, Yellow, Manual

Installation Mode: Test



Direction: Left, Right, Yes, Cancel

Intelligent Traffic Signal Controller

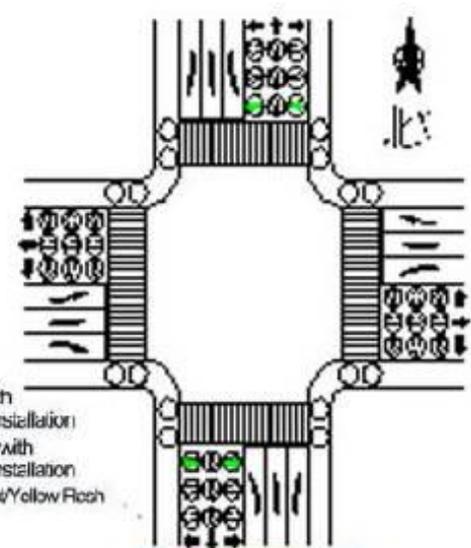
| | | | | | |
|------------------|----------------------------------|-----------------|-----------------|----------------|-----------------|
| Date setting | <input type="radio"/> | Year | Month | Day | |
| Time setting | <input type="radio"/> | Hour | Minute | Second | Test |
| Flash setting | <input type="radio"/> | | Green FRT | Amber RT | |
| Weekday setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Weekend setting | <input type="radio"/> | Time period | Start hour | Start minute | Schedule number |
| Schedule setting | <input checked="" type="radio"/> | schedule number | sequence number | Run time | |
| Current Status | <input type="radio"/> | Schedule number | Run time | Time Remaining | |

Adjust the time for green light when it is running

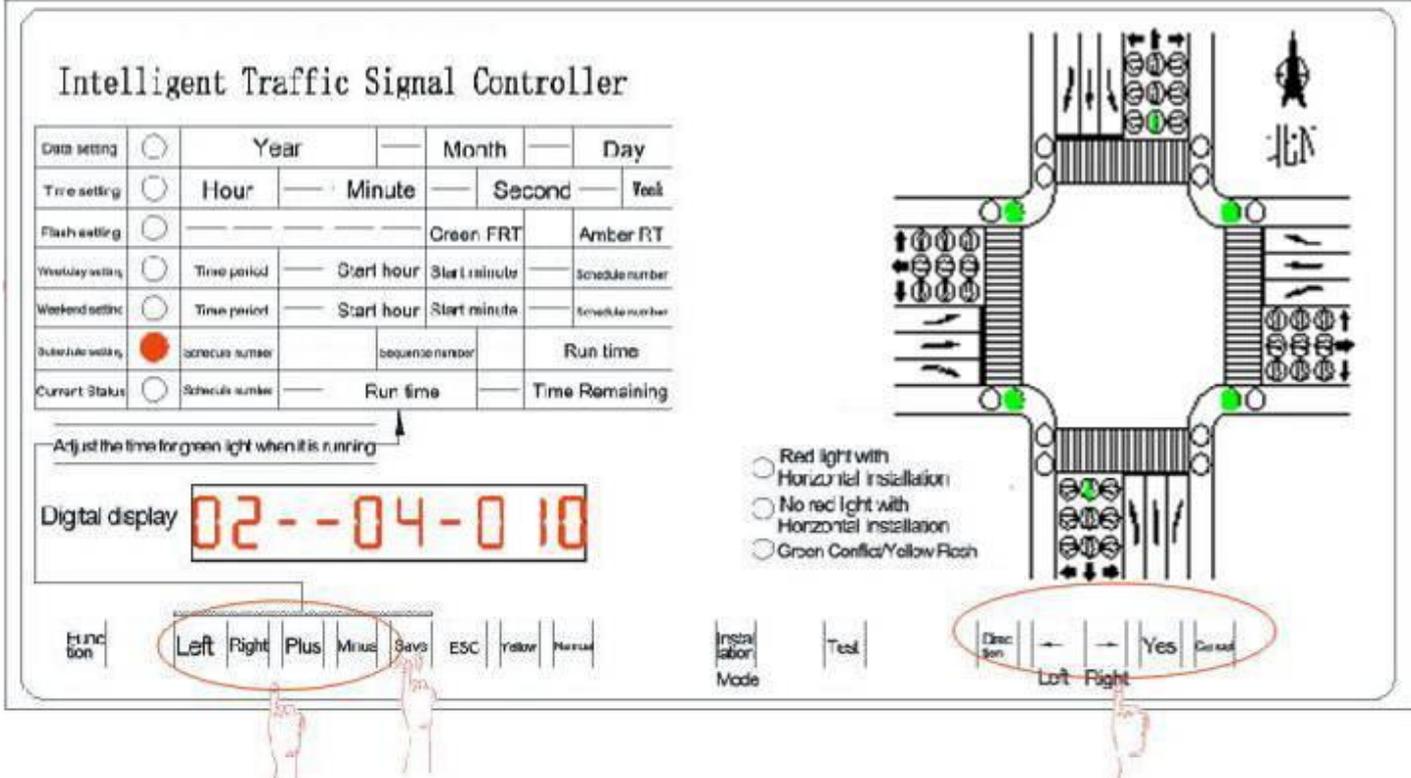
Digital display **02--03-010**

Function: Left, Right, Plus, Minus, Save, ESC, Yellow, Manual

Installation Mode: Test



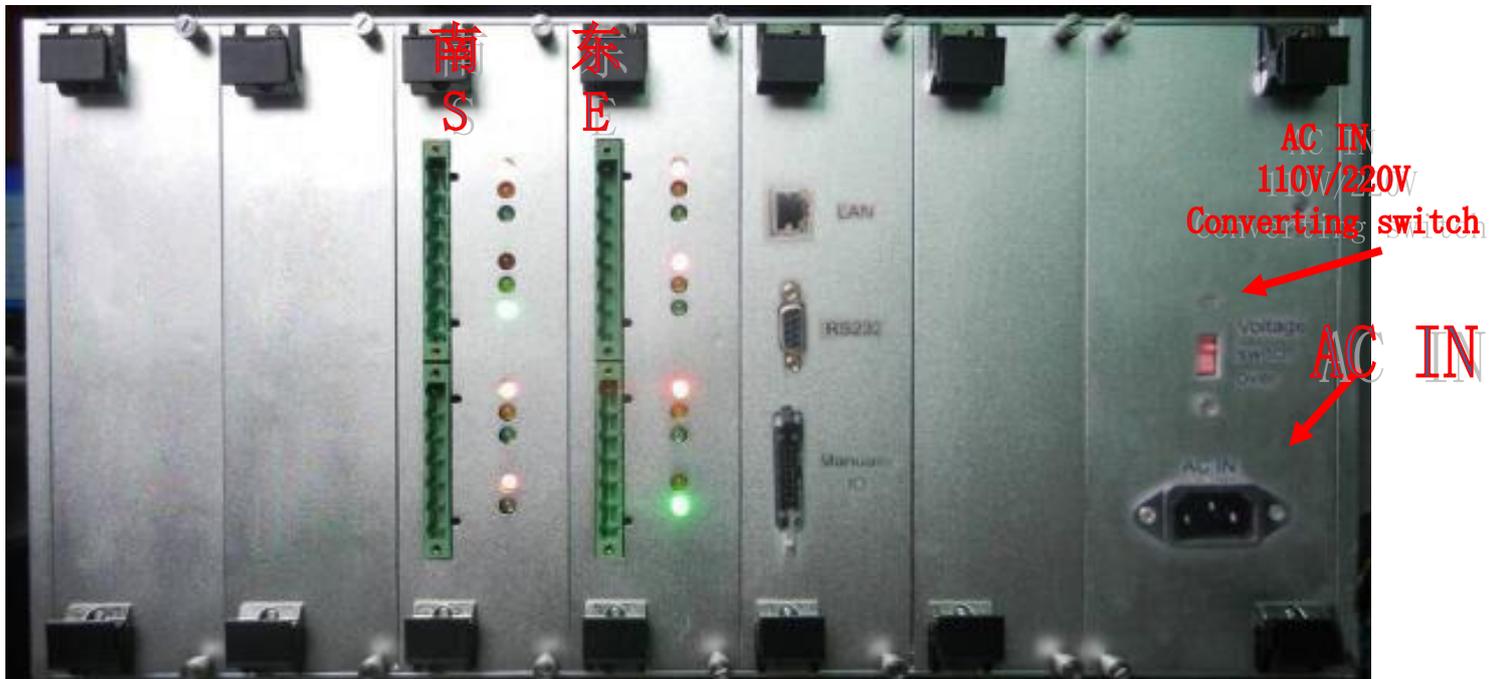
Direction: Left, Right, Yes, Cancel



5. Solutions to Common Problems

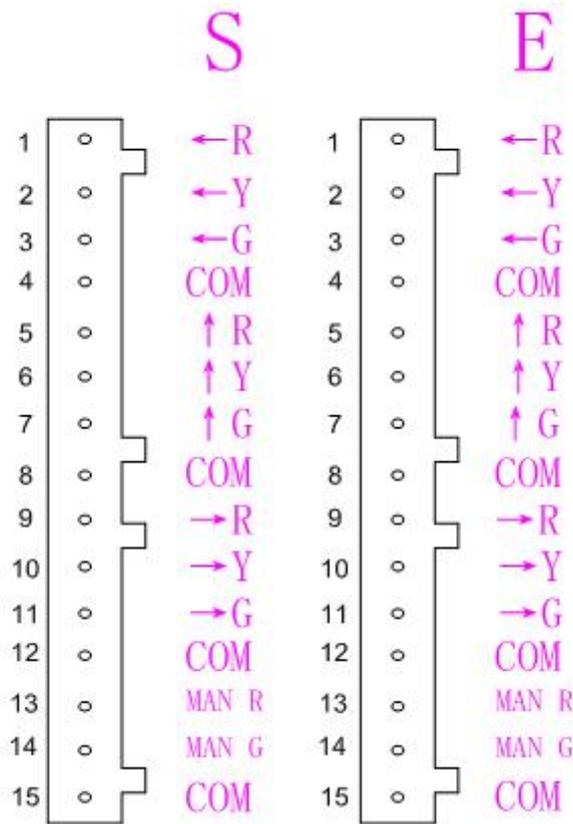
| Item | Failure phenomena | Solutions scheme |
|------|--|---|
| 1 | The controller doesn't work and has no power . | The fuse may be cut off. Users need to use a fuse of 5A or main fuse of 10A to change it. Main fuse is in the power socket. |
| 2 | The signal lights in the road intersection keep flashing amber and it is because of setting. | The reason may lie in the phase setting, and there happen green conflicts (the panel green conflict indicated light). You need to reset the phase program again. |

7. Signal Controller Wiring Diagram





Output port corresponding graph:



The digital returns the interface definition (notes: The same dedinition for 4pcs driver interface.)

| | | | | | | | |
|-------------|----------------------|-------------------------|------------------------|-------------|-----------------------|--------------------------|-------------------------|
| Item | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Description | Turn Left Red light | Left turn yellow light | Turn Left green light | Common Port | Go Straight Red light | Go straight Yellow light | Go straight green light |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Common port | Right turn Red light | Right turn yellow light | Right turn Green light | Common Port | Pedestrian red light | Pedestrian green light | Common Port |

8. The Whole Cabinet Wiring Diagram

