



TSC300 Web Configuration Manual

Legal Information

© 2022 Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

This Document (hereinafter referred to be “the Document”) is the property of Hangzhou Hikvision Digital Technology Co., Ltd. or its affiliates (hereinafter referred to as “Hikvision”), and it cannot be reproduced, changed, translated, or distributed, partially or wholly, by any means, without the prior written permission of Hikvision. Unless otherwise expressly stated herein, Hikvision does not make any warranties, guarantees or representations, express or implied, regarding to the Document, any information contained herein.

About this Document

Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Document is subject to change, without notice, due to updates or other reasons.

Please use this Document with the guidance and assistance of professionals trained in supporting the Product.

LEGAL DISCLAIMER

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE DOCUMENT IS PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. IN NO EVENT WILL HIKVISION BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, IN CONNECTION WITH THE USE OF THE DOCUMENT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

The content of this manual is furnished for informational use only and it is subject to change without notice.

Catalogue

1.	Prepared.....	1
2.	Activation and Login	2
	2.1 Activation	2
	Activate	2
	SADP Activation	3
	Web Activation	4
	2.2 Login and Exit	5
3.	Status Display	5
	3.1 Intersection Status	5
	3.2 Device Info.....	7
	3.3 Cycle Status	7
	3.4 Manual Control:.....	7
4.	Fixed cycle configuration	9
	4.1 Background.....	9
	Template.....	9
	Channel Configuration (for lights)	12
	Lane (for intersection)	14
	4.2 Confliting Channel (optional)	15
	4.3 Phase.....	16
	4.4 Pattern.....	19
	4.5 Plan	21
	4.6 Schedule	23

5.	System settings	25
5.1	System Management	25
	Online update	25
	Restore or reboot	25
5.2	Time Sync Management.....	25
5.3	Network.....	26
5.4	Serial Port	26
6.	Device management	27
6.1	Control Panel	27

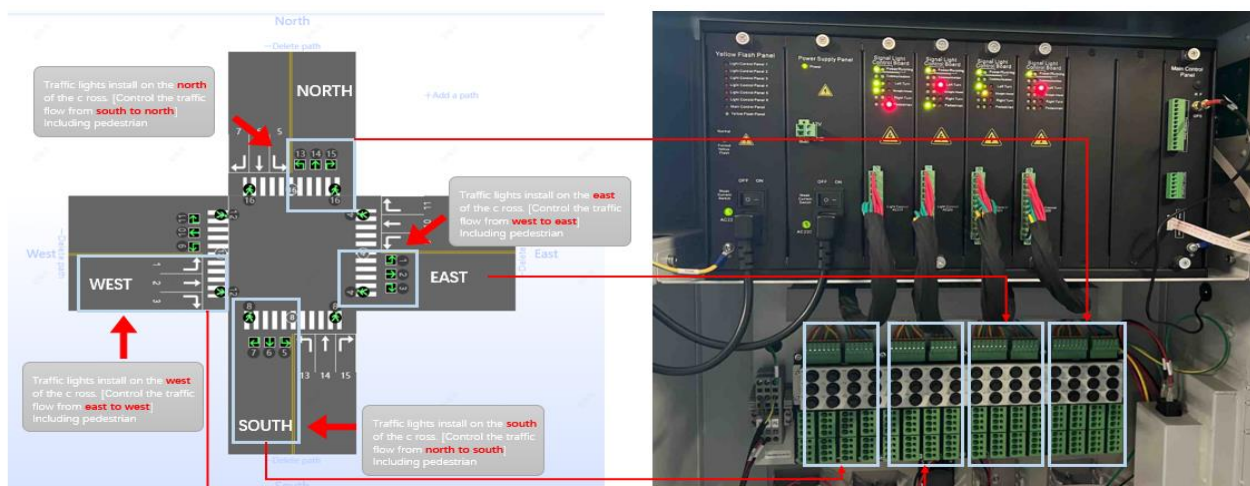
1. Prepared

Check the document *TSC300 Installation Guide* for wiring steps and get the info ready beforehand.

Running check: The signal device is powered on, the power supply and running indicators are normal, and the network connection is normal.

Wiring check: The signal and signal lights have been connected, the corresponding relationship between the connections is clear, and the corresponding relationship table of the wiring is completed:

Intersection Name	Control panel	Channel	Physical location for connecting traffic lights	Guiding the direction of traffic flow
Example Intersection 1	The first light control panel	1	Turn left light on East	Turn left from west to east
		2		
		3		
		4		
	Second light control panel	5		
		6		
		7		
		8		
	Third light control panel	9		
		10		
		11		
		12		
	Fourth light control panel	13		
		14		
		15		
		16		



Timing scheme: Obtain the required configuration of the information control scheme in advance, such as the phase design and phase time in the fixed period scheme.

Original timing scheme for intersections											
Intersection No	Time period	Phase	Direction	Phase duration (s) (Green light time+yellow light+full red)	Green light time (s) (including green flashing time)	Green flash(s)	Yellow Lights(s)	All Red(s)	Channel	Lights	Remark
Example Intersection 1	7:00-9:00	Phase 1	East go straight ahead	40	35	3	3	2	1,2,3	1,2,3	Countdown requires starting from the last 9s
		Phase 2	West go straight ahead	40	35	3	3	2	4,5,6	4,5,6	
		Phase 3	North go straight ahead	35	30	3	3	2	7,8,9	7,8,9	
		Phase 4	South go straight ahead	35	30	3	3	2	10,11,12	10,11,12	
		Cycle		150							
Example Intersection 2	9:00-17:00	Phase 1	From East go straight ahead	33	30	3	3	0	1,2,3	1,2,3	Countdown requires starting from the last 9s
		Phase 2	From West go left	33	30	3	3	0	4,5,6	4,5,6	
		Phase 3	North go straight ahead	28	25	3	3	0	7,8,9	7,8,9	
		Phase 4	South go straight ahead	28	25	3	3	0	10,11,12	10,11,12	
		Cycle		122							

Operation Environment:

- Operating System: Win7 32/64 bits and above.
- CPU: i5-4590@3.3 GHz, E3-1226 V3@3.30 GHz and above.
- Graphics: GTX970 (N-Card), Inter® HD Graphics P4600 and above.
- Resolution Ratio: 1024 × 768 and above.
- Browser: The 32-bit version of Chrome 45 above is recommended.

NOTE: This manual is intended for program versions V3.4 and above.

2. Activation and Login

2.1 Activation

Activate

The traffic signal controller must be activated, and the login password must be set before it can be used for the first time.

Set a strong password that meets security requirements.

The default value is shown below.

- IP address: 192.168.1.101;
- User: admin

SADP Activation

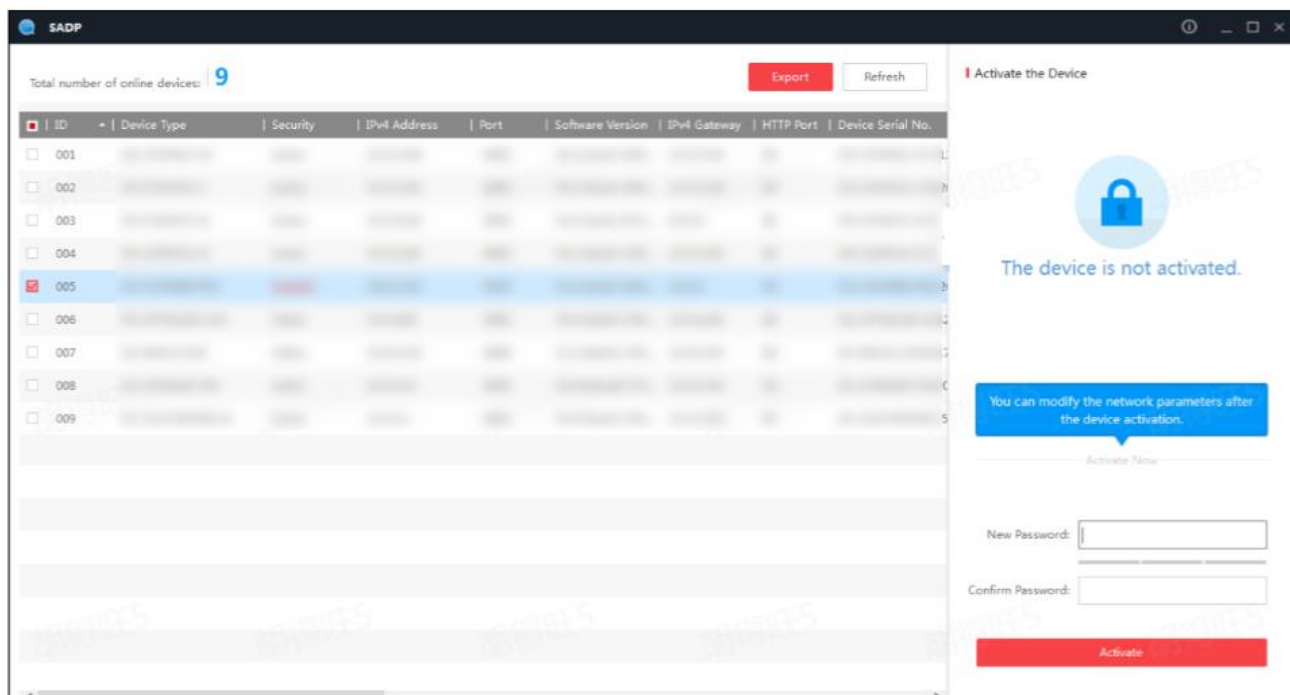
When multiple devices in the LAN are activated, you can use SADP software to activate them in a batch.

Before you start

The device and computer are connected to the same network segment LAN.

- 1) Install and run SADP software on the computer.
- 2) Select the device to activate. Enter the password to activate the device, and click Activate.

After the device is activated, the activation status in the list will be updated to activate.



Edit IP address:

Select the activated device, enter the IP address, subnet mask, and gateway on the right, and enter the password. Click **Modify** to edit the parameters.

TSC300 Web Configuration Manual

The screenshot shows the SADP (Smart Audio Device Protocol) web interface. At the top, it indicates 'Total number of online devices: 9'. Below this is a table with columns: ID, Device Type, Status, IPv4 Address, Port, Enhanced SDK Service, Software Version, IPv4 Gateway, and HTTP Port. The first row shows device 001, type XHJ-CW-GA-HK3, status Active, IP 192.168.1.100, port 30000, and HTTP port 80. To the right of the table is a 'Modify Network Parameters' sidebar. This sidebar contains checkboxes for 'Enable DHCP' and 'Enable Hik-Connect'. Below these are input fields for: Device Serial No. (XHJ-CW-GA-HK3-F242941), IP Address (192.168.1.100), Port (30000), Subnet Mask (255.255.255.0), Gateway (192.168.1.1), IPv6 Address (::), IPv6 Gateway (::), IPv6 Prefix Lengths (0), and HTTP Port (80). At the bottom of the sidebar is a 'Security Verification' section with an 'Administrator Password' field and a 'Modify' button.

ID	Device Type	Status	IPv4 Address	Port	Enhanced SDK Service	Software Ver...	IPv4 Gate...	HTTP
001	XHJ-CW-GA-HK3	Active	192.168.1.100	30000	N/A	HIKETSC-V3...	192.168.1.1	80
002	XHJ-CW-GA-HK3	Active	192.168.1.101	30000	N/A	HIKETSC-V3...	192.168.1.1	80
003	XHJ-CW-GA-HK3	Active	192.168.1.102	30000	N/A	HIKETSC-V3...	192.168.1.1	80
004	XHJ-CW-GA-HK3	Active	192.168.1.103	30000	N/A	HIKETSC-V3...	192.168.1.1	80
005	XHJ-CW-GA-HK3	Active	192.168.1.104	30000	N/A	HIKETSC-V3...	192.168.1.1	80
006	XHJ-CW-GA-HK3	Active	192.168.1.105	30000	N/A	HIKETSC-V3...	192.168.1.1	80
007	XHJ-CW-GA-HK3	Active	192.168.1.106	30000	N/A	HIKETSC-V3...	192.168.1.1	80
008	XHJ-CW-GA-HK3	Active	192.168.1.107	30000	N/A	HIKETSC-V3...	192.168.1.1	80
009	XHJ-CW-GA-HK3	Active	192.168.1.108	30000	N/A	HIKETSC-V3...	192.168.1.1	80

Modify Network Parameters

☐ Enable DHCP
☐ Enable Hik-Connect

Device Serial No.: XHJ-CW-GA-HK3-F242941

IP Address: 192.168.1.100

Port: 30000

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

IPv6 Address: ::

IPv6 Gateway: ::

IPv6 Prefix Lengths: 0

HTTP Port: 80

Security Verification

Administrator Password:

Modify

When configuring the IP address, please keep the IP address of the device and the computer's IP address in the same network segment.

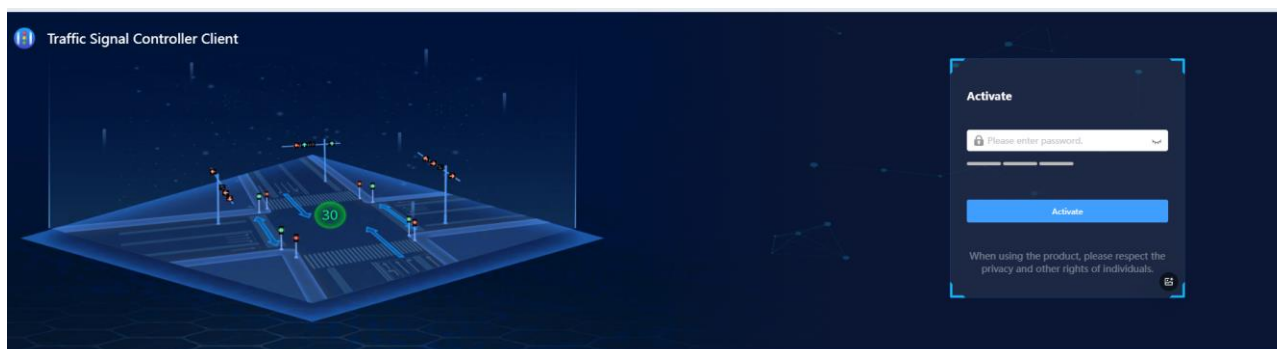
Web Activation

Web activation is available when accessing via browser, live view, and Device Settings.

Prerequisite

The PC and device are connected to the same network segment LAN.

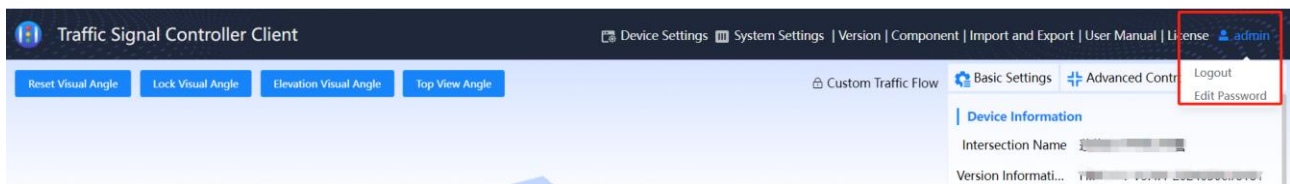
- 1) Set PC and device IP addresses in the same network segment (e.g., 192.168.1.100).
- 2) Enter the device's default IP address in the browser address bar(e.g., https://192.168.1.100)
- 3) Enter a password and confirm the password.
- 4) Click OK.



2.2 Login and Exit

After the traffic signal controller is connected to the computer, you can log in via the Web to operate the device.

- 1) Enter the device's IP address in the browser address box and press Enter. Enter the username and password.
- 2) Click Login.
- 3) (Optional) Click Logout to exit the system safely.



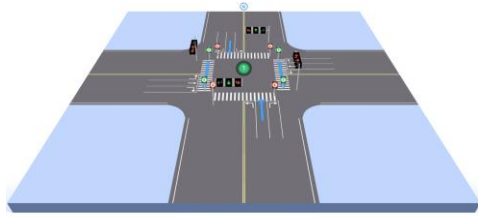
3. Status Display

You can view device information, cycle status, control mode, and other status information on the status display.

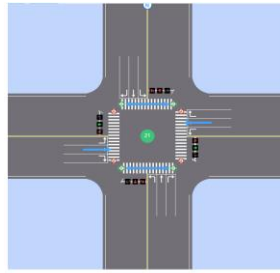


3.1 Intersection Status

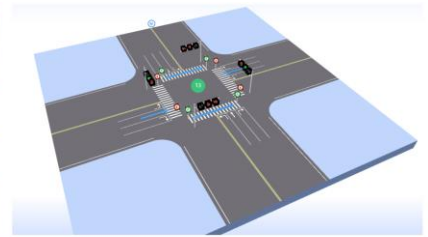
- 1) View Angel Choose:



Front View

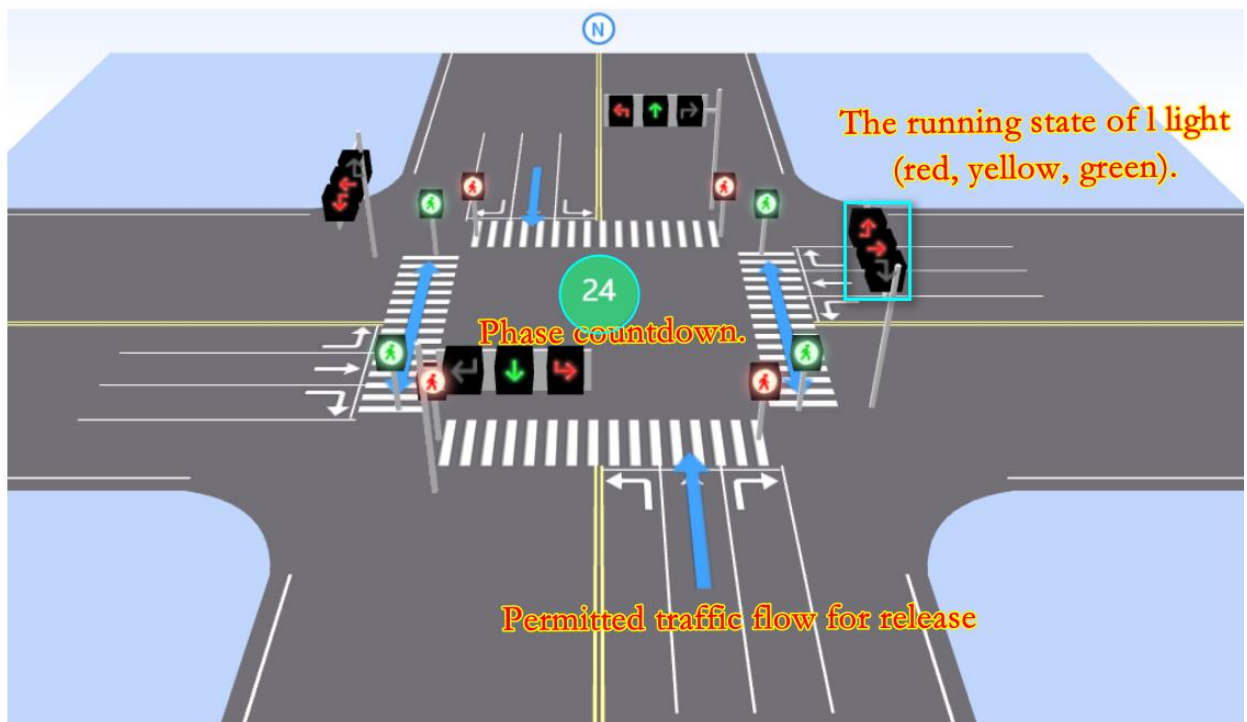


Top View



Reset View

2) Light Status:



3) Phase Status:

Hide	Hide/Display						
1 E-W Straight	30s / 30s	2 E-W Left-Turn	4s / 20s	3 S-N Straight	0s / 30s	4 S-N Left-Turn	0s / 20s
phase description		countdown / phase duration					

3.2 Device Info

Device Information	
Intersection Name	road1
Version Informati...	..
Device Model	>

3.3 Cycle Status

Cycle Status	
Control Type	Local Control
Control Mode	Ring Cycle
Control Pattern	1_Test for 4 Phases
Locked Status	Unlocked
Cycle Duration	100s
Cycle Running D...	3s
Cycle Start Time	2024-09-23 16:40:54s
Traffic Signal Con...	2024-09-23 16:40:56s

3.4 Manual Control:

You can control to a certain scheme/light color state, or single step, jump step.

Single step: The first click start stays in the current phase. Click again to run the next phase. If click disable step, it returns to the local control.

Jump step: Choose the step phase, click start, it jumps to run the choose phase.

Duration:

TSC300 Web Configuration Manual

Manual Control

Control Mode ☐ Step

Local Time Period

Disabling

Yellow Flash

All Red

Ring Cycle

Full Reaction

Single-Point Self-Adaption

Coordinated Green Wave

Control Pattern

Test for 4 Phases

Duration (s)

0

Start

Manual Control

Control Mode ☒ Step

Local Time Period

Step Mode ☒ Single... ☐ Jump ...

Step Phase

1 E-W Straight

Duration (s)

0

Start

Disable Step

Manual Control

Control Mode ☒ Step

Local Time Period

Step Mode ☐ Single... ☒ Jump ...

Step Phase

1 E-W Straight

Duration (s)

0

Start

Disable Step

Single step

Jump step

Manually control to a certain scheme/light color state.

4. Fixed cycle configuration

This chapter is the detailed configuration steps for the (multi-period) **fixed-cycle scheme**. The newly installed device needs to be configured with the basic fixed-cycle scheme before the intersection can operate normally. If the configuration parameters are incomplete and the scheme is not issued or the issuance is unsuccessful, the lights will run yellow flash control.

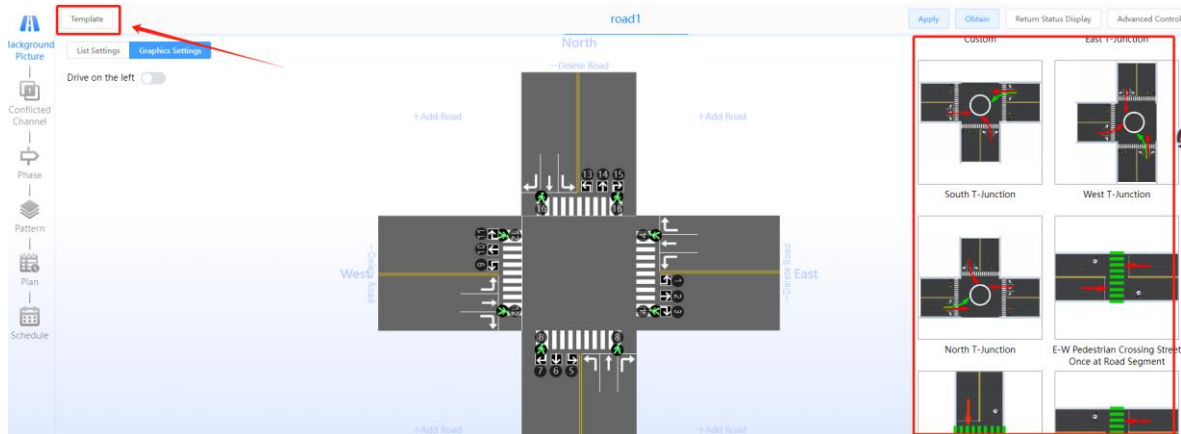
Generally, the configuration parameters of the basic scheme include: background, conflict channels, phase, pattern, plan, and schedule.

4.1 Background

BACKGROUND is a display of the geometric shape of the on-site intersection, road channelization, and an explanation of the front-end wiring situation. The configuration content mainly includes: template, channel, and lane. Generally, after the configuration is completed, it will not be changed without special circumstances.

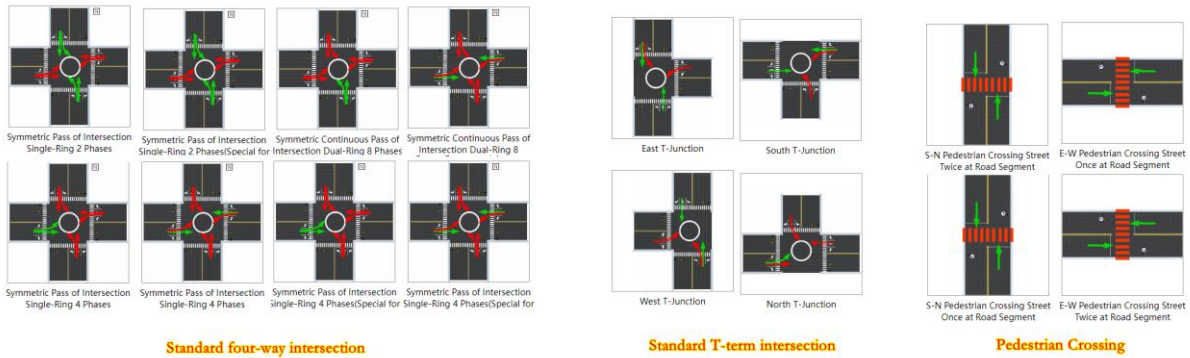
Template

Click on “Template” in the upper left corner, and the template selection will pop up on the right side.

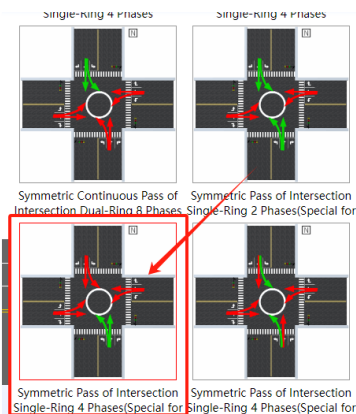


The client provides four types of channelization templates for standard intersections: 4-phase single-port, 4-phase symmetrical, 2-phase symmetrical, and double-ring 8-phase symmetrical overlapping release, as well as two templates for one-time crossing of pedestrians on road sections.

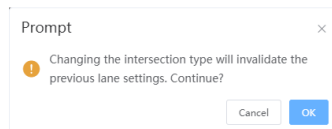
TSC300 Web Configuration Manual



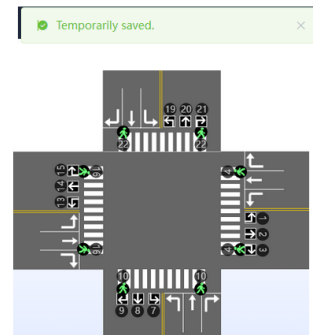
Standard template: The client provides scheme templates for standard intersections, T-intersections, and pedestrian crossings on road sections. You can select the corresponding template according to the situation of the on-site intersection. These templates already contain all the default configuration parameters. You can intuitively see the running order of the scheme phases from the dynamic schematic diagram of the template.



① Click the selected template

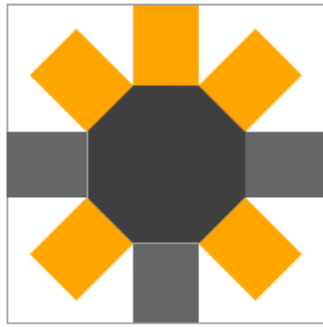


② Click OK, the previous parameters will be overwritten

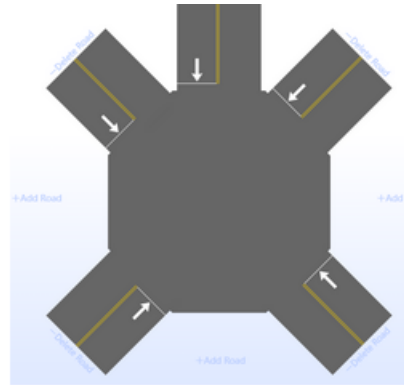


③ "Temporarily saved" means template parameters are displayed on the local PC website but have not been issued to the sdevice yet.

Custom: You can also set Custom for irregular channelization or intersections.



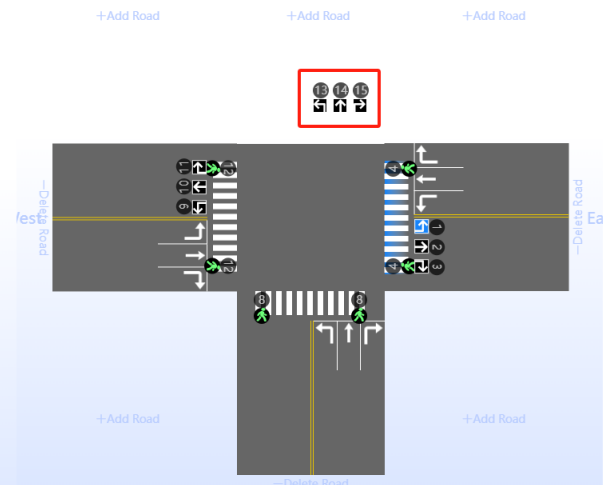
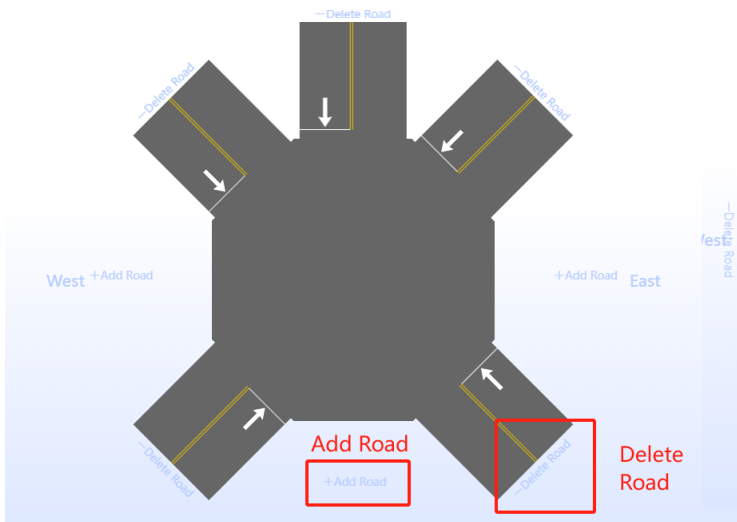
Custom



Select the corresponding direction according to the actual intersection shape

You can view the intersection style on the left.

Add/delete direction or road:



NOTE:

- 1) When adding a road, the approach road and lanes will increase, but the channels (i.e., signal lights) will not increase correspondingly.
- 2) When deleting an existing road, the approach road, lanes, and channels (signal lights) will be deleted.

Channel Configuration (for lights)

“Channel” reflects the actual wiring situation at the terminals of the signal controller. According to the signal lights of different directions and types, they are connected to different channels of the signal controller respectively to form a channel table.

Therefore, the selection of channel number, direction where the light is located, and channel type must be consistent with the actual wiring.



Parameter description :

- **Channel NO.:** It refers to the channel number of the signal controller's light control board, as shown in detail in the following figure.
- **Light Location Direction:** The actual position of the signal light connected by this channel. This value should be consistent with the actually connected signal light. Modifying this value will change the display position of the light on the intersection diagram.;
- **Channel Type:** It refers to the signal light type. The corresponding shape will be displayed on the intersection diagram. Generally, the light type includes: left-turn/straight/right-turn arrow lights for motor vehicles, round lights, pedestrian lights, left-turn/straight lights for non-motor vehicles, U-turn lights for motor vehicles, tidal lane indicator lights, variable lane guide lights, etc.
- **Indicator:** Graphical display of the corresponding channel type;
- **Channel status:** Specify that the signal light corresponding to a certain channel is displayed and maintained in a certain light color. The default configuration is: not specified. Specifying the corresponding channel status as [Green Light] can realize the evergreen function of the signal light.

- **Linked channel:** It corresponds to the [Lane] configuration and shows the lane number associated with the current channel.

Steps:

- 1) Select template

After selecting [Template], the channel configuration will be automatically generated according to the selected template. On this basis, you can modify the channel number, the physical location of the light, the signal light type or specify the status of this signal light.

- 2) Add channel
- 3) Edit channel parameters

Select a light channel on the intersection diagram (blue mark). The selected channel will be highlighted in the right channel table. Modify the parameters according to the actual light wiring and style, and the corresponding mark on the intersection diagram will also change accordingly.

The screenshot displays the TSC300 Web Configuration interface. On the left, an intersection diagram for 'road1' is shown with lanes numbered 1 through 16. A blue mark is placed on lane 5 (Southbound Left-Turn), and a red box highlights it with the text 'edit the parameters'. On the right, the 'Channel Settings' section is visible. A red box highlights the 'Direction' dropdown menu with the text 'select the direction'. Another red box highlights the '+Add Channel' button with the text 'add channel'. A third red box highlights the row for Channel No. 5 in the table, which corresponds to the selected lane in the diagram.

Channel No.	Light Location Direction	Channel Type	Indicator	Channel Status	Operation
16	North	Pedestrian Light		Undefined	
5	South	Left-Turn Arrow Light of ...		Undefined	
6	South	Straight Arrow Light of ...		Undefined	
7	South	Right-Turn Arrow Light o...		Undefined	

When configuring, pay attention to which actual signal light is connected to the position corresponding to the channel NO. that you can get from the prepared wiring table.

Lane (for intersection)

“Lane” is used to configure and display the number of lanes and lane markings of each entrance lane at an intersection.

Parameter description :

Lane Direction : The direction of traffic flow controlled by the lane.

Turn Direction: include “lane type” and “direction”.

Lane Type: Normal Lane, Changeable Lane, Reversible Lane, Sidewalk, Bike lane, Exclusive right turn lane, Roundabout lane.

Direction: Straight, left, right, etc.

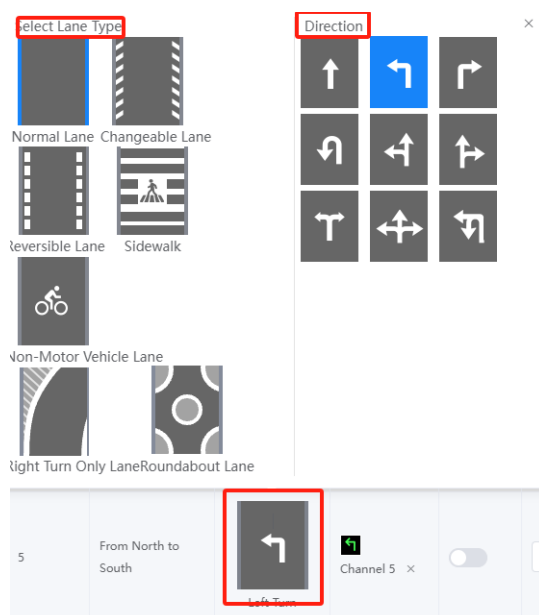
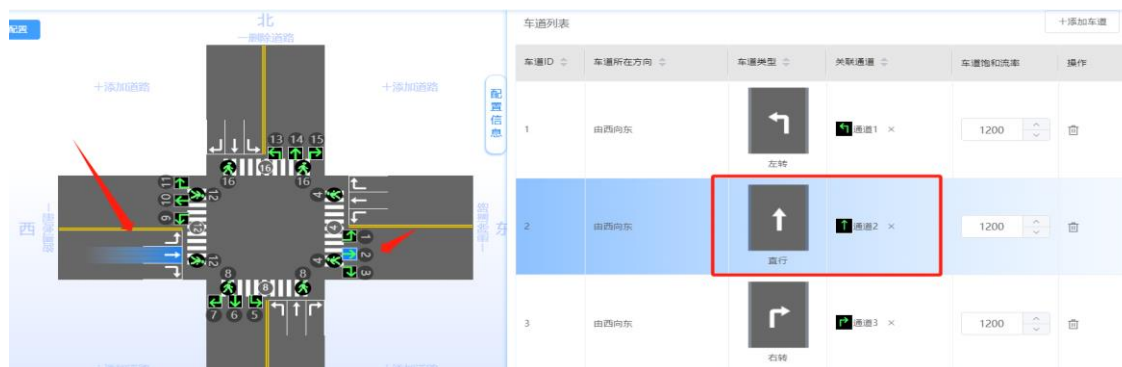


图1-1 车道类型

*****Linked channel**: It refers to the signal light channel that needs to be lit up to release the traffic flow in that direction.

For example, for a straight lane from west to east, it needs to be linked with the straight arrow light erected in the east direction. In “channel”, if the channel number of the straight arrow light in the east direction is 2, then the linked channel configuration is 2.



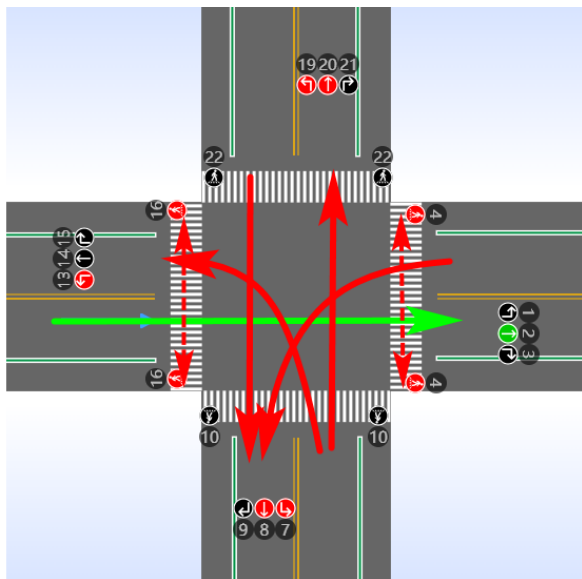
In the Background, when clicking on a lane, the lane and its linked channel (signal light) will be displayed in blue highlight, indicating the association relationship between the lane and the channel.

Steps:

- 1) Background>> Graphic Setting>>Lane settings.
- 2) In the intersection diagram, click on any lane of the entrance lane, or select the entrance road in "Direction" on the right, and click "Lane Settings".
- 3) "Add Lane".
- 4) According to the actual situation of the intersection, configure the types of each lane, Linked channels, etc.

4.2 Conflicting Channel (optional)

"Conflicting channel" refers to a channel that has a traffic conflict with the currently released channel. Green conflict is a major hidden danger accident. After being configured here, green conflicts caused by configuration and other reasons can be avoided.

**Step:**

Find all channels that conflict with the selected channel. For example, for channel 2 (going straight from west to east, green arrow), the conflicting channels include 13, 7, 8, 19, 20, 16, 4 (red arrow).

You can click on "Generate Conflicted Channels" to automatically generate conflict configuration according to the set channel direction. Of course, if you think there is no problem with the manual configuration, the conflict configuration can be ignored.

4.3 Phase

"Phase" refers to the signal display state of one or more traffic flows that simultaneously obtain the right of passage within a signal cycle. It needs to be configured according to the actual requirements on site.

The web client provides two views: list view and card view.

background
Picture

Conflicted
Channel

Phase

Pattern

road1

Apply

Obtain

Return Status Display

Advanced Control

+ Add Phase

(When a standard phase description is selected, channels can be linked automatically. But it is only an auxiliary function. Please check final application according to the on-site situation.)

Enter a phase No. or name to search.

Search

List View

Card View

Phase No.	Description	Green Flash (s)	Yellow Light (s)	All Red (s)	Red Yellow (s)	Green Flash for Pedestrian (s)	Green Light for Pedestrian (s)	Min. Green Light (s)	Max. Green Light (s)	Extended Green for Every Detected Vehicle (s)	Sensor Detect Time (s)	Linked Channel	Operation
1	West Pass	3	3	0	0	5	0	15	50	3	6	1 2 10	
2	North Pass	3	3	0	0	5	0	15	50	3	6	16 7 8	
3	East Entrance Pass	3	3	0	0	5	0	15	50	3	6	22 13 14	
4	South Entrance Pass	3	3	0	0	5	0	15	50	3	6	19 20 4	

List View

TSC300 Web Configuration Manual



Parameter description :

The phase parameters include required parameters and optional parameters. The optional parameters are used in advanced control scheme. You can refer to the "Advanced Control Scheme Configuration Manual". This manual is for the basic fixed-cycle scheme so that it just explains the required parameters.

The light color changes of general normal motor vehicles and pedestrian lights are as follows (taking a two-phase scheme as an example):



Green flash : The last flashing time of the green light, set 3s by default.

Yellow : After the green light ends, there will be a yellow light time to warn drivers that the light color is about to change. The default is 3s.

All Red : It refers to the duration when all lights at an intersection are in the red light state. It is set after the yellow light ends and before the red light starts. It is used to clear vehicles that have crossed the stop line but have not passed through the intersection when the signal phase is switched. The default is 0s. It is recommended that it should not exceed 5s.

Green Flash for Pedestrian : The last flashing time of the green light for pedestrian, set 5s by default.

Green Light for Pedestrian: When the value is 0s, it means green light's duration time for pedestrian is same as the motor. When the value is not 0s, it means

When the value is 0s, the pedestrian release green light time is consistent with the duration of the motor vehicle phase.

When the value is not 0s, the total pedestrian release green light time = green flash for pedestrian + green light for pedestrian.

***Linked channel:** It refers to the channels to be released in this phase. According to the prepared scheme table, fill in the wiring channels that correspond to all released green light in each phase.

Steps :

Configure the phase according to the scheme table prepared in advance. If a template has been selected, the phase here will be automatically generated. Modify the parameters to make it consistent with the prepared scheme.

1 Add phase

+ Add Phase (When a standard phase description is selected, channels can be linked automatically. But it is only an auxiliary function. Please check final application according to the on-site situation.)

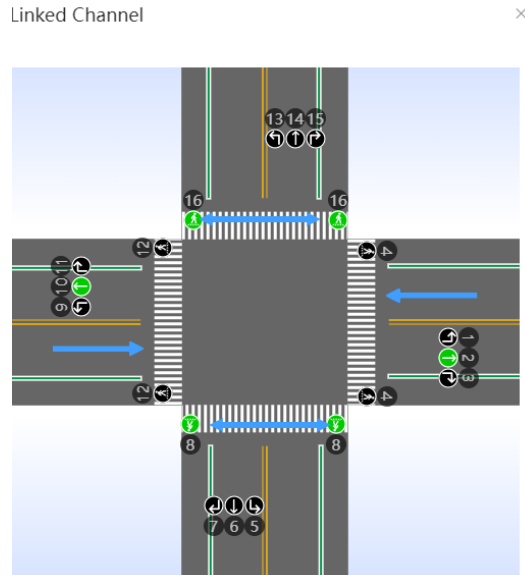
optional parameters name to search.

Phase No.	Description	Green Flash (s)	Yellow Light (s)	All Red (s)	Red Yellow (s)	Green Flash for Pedestrian (s)	Green Light for Pedestrian (s)	Min. Green Light (s)	Max. Green Light (s)	Extended Green for Every Detected Vehicle (s)	Sensor Delay Time (s)	Linked Channel	Operation
1	E-W Straight	3	3	0	0	5	0	15	50	3	6	15 2 10 8	
2	E-W Left-Turn	3	3	0	0	5	0	15	50	3	6	1 9 7	
3	S-N Straight	3	3	0	0	5	0	15	50	3	6	14 4 12 6	
4	S-N Left-Turn	3	3	0	0	5	0	15	50	3	6	13 5	

2 **3 required: motor parameters** **3 required: pedestrian parameters** **4**

- 1) Add phase.
- 2) Describe the phase according to the released traffic flow. If there is no suitable one, it can also be customized.
- 3) Set the motor and pedestrian required parameters according to the prepared scheme.
- 4) Click on the “linked channels” of phase. In the popped-up channelization diagram, select the channels that need to show green lights in this phase.

TSC300 Web Configuration Manual



Note: When you select the phase description (not custom), the linked channels will be automatically associated according to the description direction. If it does not match the site, you can continue to modify the linked channels.

4.4 Pattern

In the “Pattern” configuration, a signal cycle is formed by arranging the execution sequence of phases and setting the execution time of each phase. The configuration rules of the scheme should also follow user requirements and combine the actual situation on site. Generally, it can be configured as: morning and evening peak schemes, off-peak schemes, etc.

Parameter description :

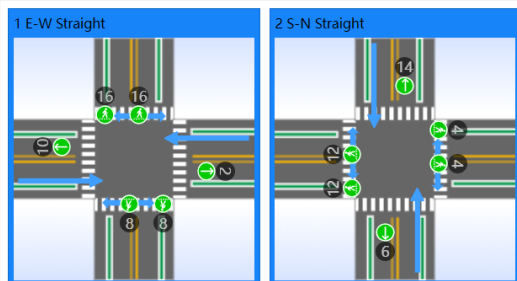
Edit Pattern

Pattern Name Symmetric Pass of Inte Offset (s) 0

Phase Pool ● Drag a phase to the corresponding ring to add it

Enter a phase number or name to search

Search



Details ● Drag phase to change phase sequence. Click on phase to configure scheme parameters

(Note: Barriers can be set when there are multiple rings. Barriers will be reset after the phase duration is edited or the phase sequence is adjusted)

Cycle (s) 60 ■ Coordinated Phase ■ Selected Barrier ■ Optional Barrier

1	E-W Straight	30s	2	S-N Straight	30s	⚙ 🗑
+ Add Ring						

Phase Pool: All the phases configured in “Phase” are displayed here. You can use the search box on the right to input the phase number or phase name for phase retrieval.

Phase Duration: It is the duration during which vehicles at this entrance lane obtain the right of way. It can be set according to the actual traffic volume in each direction. It should be ensured that queued vehicles are basically cleared within the green light time.

Phase Duration = Green Light + Yellow Light + All Red.

Cycle: The total duration for the phases to be executed once in accordance with the phase sequence, that is, in a single-loop scheme, the sum of the phase durations of all phases.

Ring: Arrange the phases in order and represent them in a “Ring” manner.

Barrier: In double-ring and multi-ring schemes, in order to avoid the situation where phases in each loop may be released in conflict, barriers are used to separate incompatible phase components. Phases on both sides of the barrier cannot be released at the same time. (Within the same barrier, the sum of the phase durations of each loop is equal.)

Single ring:

5	West Left-Turn	15s	6	East Straight	15s	7	North Left-Turn	15s	8	South Straight	15s
---	----------------	-----	---	---------------	-----	---	-----------------	-----	---	----------------	-----

Double ring:

1	West Straight	30s	2	East Left-Turn	20s	3	North Straight	30s	4	South Left-Turn	20s
5	West Left-Turn	20s	6	East Straight	30s	7	North Left-Turn	20s	8	South Straight	30s

Status: When this phase is running, the display status of the channel (signal light) associated with this phase is defaulted to " Undefined ", that is, during the current phase, green light - yellow light - red light runs according to time. If a defined state is set, the signal light will maintain the defined light color within the duration of this phase.

Step:

1) Use or edit template pattern

After selecting a template, the pattern will automatically generate parameters, which can be modified according to the template parameters.

TSC300 Web Configuration Manual

+ Add Pattern

copy/edit/del

1 Symmetric Continuous Pass of Intersection Dual-Ring 8 Phases

Name

Cycle (s) 100 Offset (s) 0 Coordinated Phase 1

1

West Straight

30s

2

East Left-Turn

20s

3

North Straight

30s

4

South Left-Turn

20s

5

West Left-Turn

20s

6

East Straight

30s

7

North Left-Turn

20s

8

South Straight

30s

Phase Description

Phase Duration

2) Add New Pattern

Edit Pattern

1 **Name**

Pattern Name: Symmetric Continuous... Offset (s): 0

Phase Pool: Drag a phase to the corresponding ring to add it

2 **Drag a phase to the corresponding ring to add it**

Details: Drag phase to change phase sequence. Click on phase to configure scheme parameters

(Note: Barriers can be set when there are multiple rings. Barriers will be reset after the phase duration is edited or the phase sequence is adjusted)

Phase ID	Phase Description	Green Light Time (s)	Yellow Light Time (s)	All Red Time (s)	Phase Duration (s)	Status	Coordinated Phase	Operation
1	West Straight	27	3	0	30	Undefined	☒	↓ ↑ ⌵ ⌶
2	East Left-Turn	17	3	0	20	Undefined	☐	↓ ↑ ⌵ ⌶
3	North Straight	27	3	0	30	Undefined	☐	↓ ↑ ⌵ ⌶

3 **phase duration**

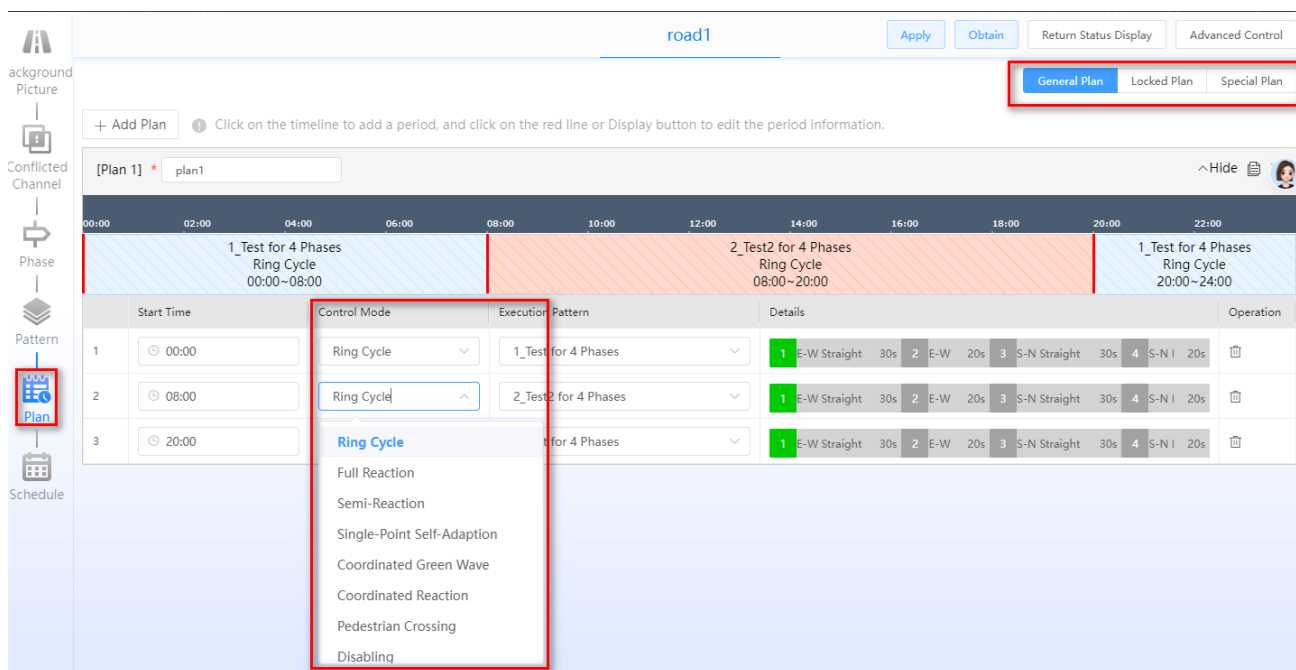
4 **Adjust the phase sequence.**

4.5 Plan

Parameter description :

During one day, at different time periods of an intersection, the traffic flow may fluctuate and change. To make the signal control scheme more in line with and adapt to the traffic flow situation, the day can be divided into time periods in the “plan” configuration to implement setting different control types and control schemes for different time periods.

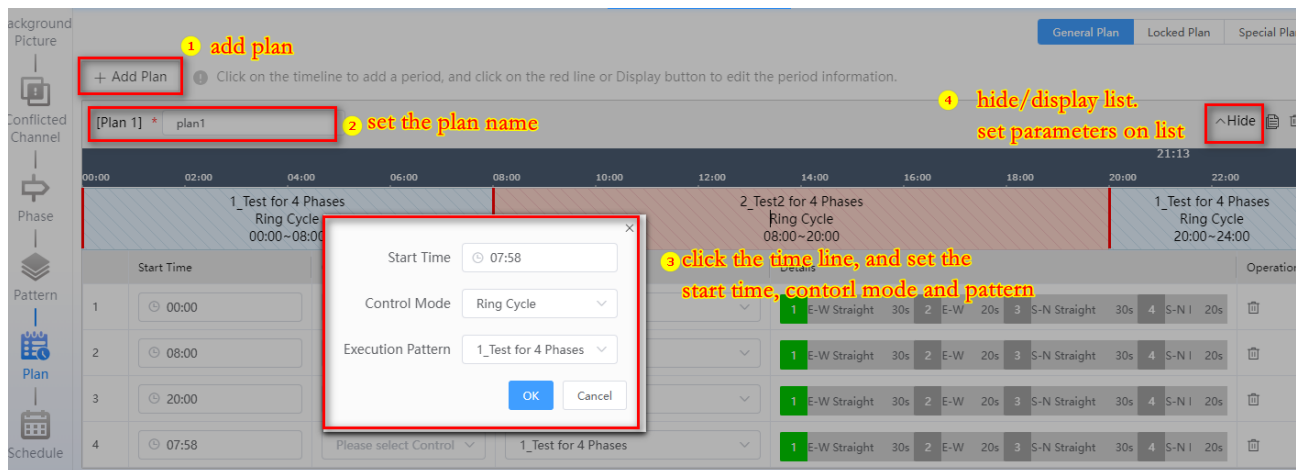
TSC300 Web Configuration Manual



“Plan” includes General plan, Locked plan, Special plan. For fixed cycle configuration, we select General plan.

You need to arrange different time periods for 24 hours a day to execute different plans. Generally, a day can be divided into daytime and nighttime; or such as morning peak, off-peak, evening peak, and nighttime.

Steps:



- 1) “+ Add plan” in the upper left corner;
- 2) Click on the timeline to select the start time of the scheme, set the control mode, and the execution pattern corresponding to the prepared time period.
- 3) Click “display”, the plan list can be shown, you also can set parameters on list.

TSC300 Web Configuration Manual

Plan

+ Add Plan ⓘ Click on the timeline to add a period, and click on the red line or Display button to edit the period information.

[Plan 1] * Display

00:00 02:00 04:00 06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00 20:50

1_Test for 4 Phases
Ring Cycle
00:00~08:00

2_Test2 for 4 Phases
Ring Cycle
08:00~20:00

1_Test for 4 Phases
Ring Cycle
20:00~24:00

[Plan 2] * Hide

00:00 02:00 04:00 06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00 20:16

1_Test for 4 Phases
Ring Cycle
00:00~24:00

	Start Time	Control Mode	Execution Pattern	Details	Operation
1	00:00	Ring Cycle	1_Test for 4 Phases	1 E-W Straight 30s 2 E-W 20s 3 S-N Straight 30s 4 S-N 20s	

Note:

You can click “copy” on upper right corner.

After the selection is completed, you can confirm whether the cycle, phase duration, etc. of the selected pattern are correct in “Details” on the right. Click “Details” to directly modify the pattern parameters.

4.6 Schedule

“Schedule” is used to configure and select the “plan” executed for weeks, months, or dates. Generally, it can be divided into types such as workday, weekday, and special holidays.

Priority

- The priority of special date is higher than that of week. The priority of fixed month and date is higher than week.
- When the priority is same, the last matched one in the list prevails.

The screenshot displays the 'Schedule' configuration interface. On the left, a sidebar contains icons for 'Background Picture', 'Conflicted Channel', 'Phase', 'Pattern', 'Plan', and 'Schedule'. The main area is titled 'road1' and includes buttons for 'Apply', 'Obtain', 'Return Status Display', and 'Advanced Control'. Below these are 'List View' and 'Calendar View' tabs.

1 add schedule

A red box highlights the '+ Add Rule' button and the text: "When 'Local Time Period' is enabled, the priority of special date is higher than that of week. (The priority of fixed month and date is higher than week. When the priority is same, the last matched one in the list prevails.)"

2 select the days by week or by date

A red box highlights a table with three rows for selecting days:

Description	Select Date
1 Workday	☒ By Week ☐ By Date ☐ Select All ☐ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☐ Sat
2 Weekend	☒ By Week ☐ By Date ☐ Select All ☒ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☒ Sat
3 vacation	☐ By Week ☒ By Date 10-01,10-02,10-03,10-04,10-05,10-06,10-07

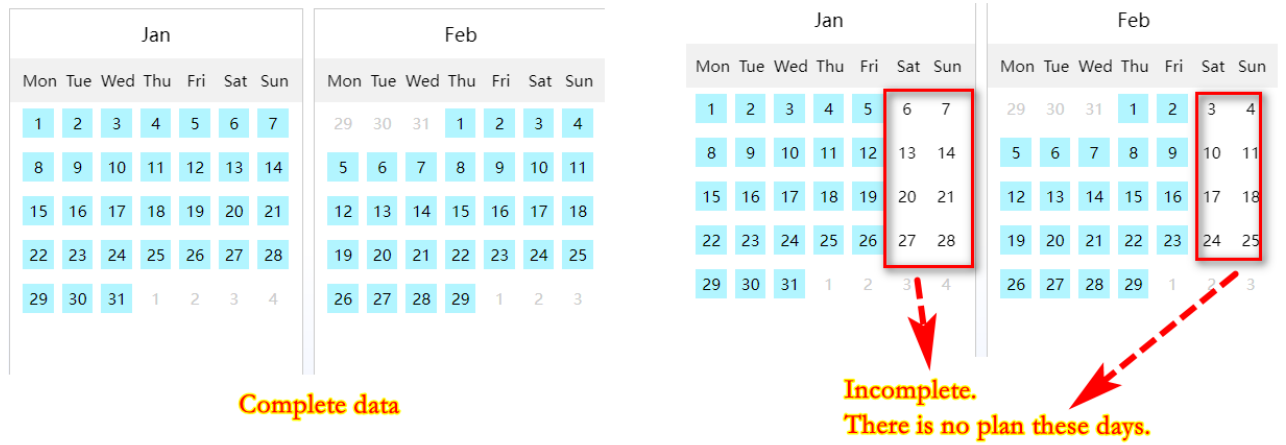
3 select the plan according to the actual scheme

A red box highlights a table for selecting a plan:

Scheduling Type	Intersection	Plan Applied
Pattern 1	1	plan1
Pattern 2	1	plan1
Pattern 3	1	Plan Applied

The web client provides two display forms: “List View” and “Calendar View”. [Calendar View] is only for preview and is used to check if there are any missing configured dates.

TSC300 Web Configuration Manual



5. System settings

5.1 System Management

Online update

“Reboot to update” needs to reboot the device, “seamless update” means that the device will not restart during the upgrade process.

Restore or reboot

The screenshot displays the 'System Management' web interface. The 'Online Upgrade' section includes an 'Upgrade File' input field with a placeholder 'Please select the upgrade file.' and two buttons: 'Seamless Upgrade' and 'Reboot to Upgrade'. The 'Device Maintenance' section has a 'Restore to Default Parameters' button, followed by a warning message: 'Restoring the device to the default parameters will not clear the password and network settings. Reboot the device to bring the new settings into effect.' Below this is a checkbox for 'Reboot device after restoration.' and a 'Reboot Device' section with a 'Reboot' button.

Restoring the device to the default parameters will not clear the password and network settings. Reboot the device to bring the new settings into effect.

5.2 Time Sync Management

Set the time calibration of device. The time calibration methods include: satellite (GPS), manual, platform and NTP. You can also set the time zone, DST.

Note: The satellite time sync need the device supports the GPS.

The screenshot shows the 'Time Sync Management' web interface with three tabs: 'Satellite', 'Manual', and 'NTP'. Each tab displays the 'Time Sync Mode' dropdown, 'Traffic Signal Controller Time', and 'System Time'. The 'Manual' tab also includes a 'Sync. with Computer Time' toggle. To the right, there are sections for 'Time Zone' (with 'Enable Time Zone' and 'Time Zone' dropdown) and 'DST' (with 'Enable DST' toggle). A 'Test' button is located at the bottom of the NTP tab.

5.3 Network

Set the IP address, subnet mask and default gateway. At the same time, you can view the MAC address.

Data Transmission Network Interface Settings

* IP Address

192.168.0.64

* Subnet Mask

255.255.255.0

* Default Gateway

0.0.0.0

MAC Address

bc:5e:33:48:9a:a7

5.4 Serial Port

This is generally used for configuration when the countdown timer is connected via RS-485. The parameters should be consistent with the connected device.

Serial Port Settings

Serial Port

RS-485-1

▼

Name

RS-485-1

Baud Rate

9600

▼

Data Bit

8

▼

Stop Bit

1

▼

Parity

None

⌵

6. Device management

6.1 Control Panel

This is used for the control configuration of the manual panel on the side of the device. By default, the panel function is off. The switch needs to be turned on before using the manual panel.

Control Panel

Control Panel Model

Enable Control Panel ☒

Duration (s) !

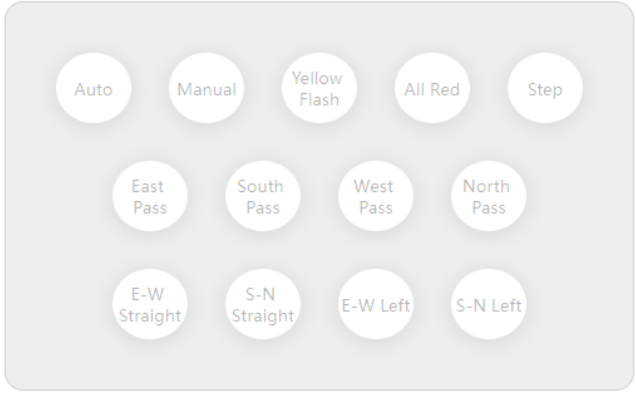
Transient Green Flash Time (s)

Transient Yellow Light Time (s)

Button Pressing Interval (s)

Control Mode ☒ Default ☐ Custom

Control Panel Diagram



The diagram shows a control panel with 13 buttons arranged in three rows. The top row contains five buttons: Auto, Manual, Yellow Flash, All Red, and Step. The middle row contains four buttons: East Pass, South Pass, West Pass, and North Pass. The bottom row contains four buttons: E-W Straight, S-N Straight, E-W Left, and S-N Left.

NOTE: "Auto" means the local control operation of device. Before pressing other manual buttons, first press the "manual" button to switch to manual mode, and then press the other buttons. For example, when switching to lights yellow flashing, you should press "manual" button → "yellow flash" button.



杭州海康威视数字技术股份有限公司
HANGZHOU HIKVISION DIGITAL TECHNOLOGY CO., LTD.

www.hikvision.com
服务热线：400-800-5998