

T818/T919 Industrial Control Computer

User Manual



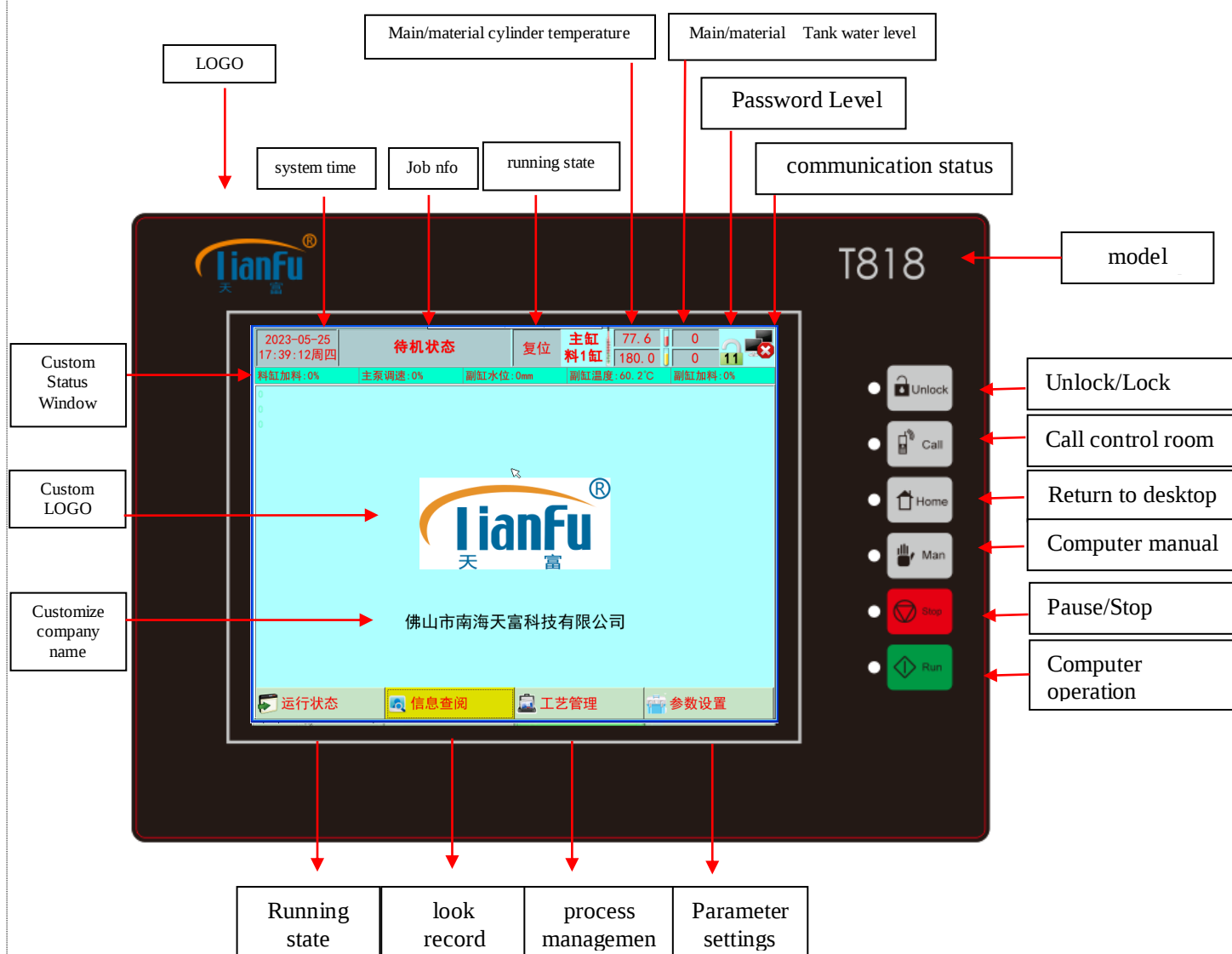
Foshan Nanhai Tianfu Technology Co., Ltd
FOSHAN NANHAI TIANFU TECHNOLOGY CO., LTD.

Catalogue

Chapter one	Basic Introduction-----	Page 2
	1.1 Display window and operation keyboard	
	1.2 Block display	
	1.3 Power on/off and reset/restart	
Chapter two	Menu operation and introduction-----	Page 4
	2.1 Operation menu	
	2.1.1 running state	
	2.1.2 Information search	
	2.1.3 Process management	
	2.1.4 Parameter settings	
Chapter three	Process Editing and Operation-----	Page 6
	3.1 Main program, additional program, additional program	
	3.2 Introduction to the main function and synchronization function	
	3.3 Password permission and process editing access (unlock/lock)	
	3.4 Editing instructions for the process	
	3.5 New Process	
	3.6 Process operation, pause, stop, skip, modify, reset	
	3.7 Computer manual single step operation and manipulation	

Company communication address and after-sales phone number, Hangzhou branch, and after-sales phone numbers of local offices	-----	Page 14
---	-------	---------

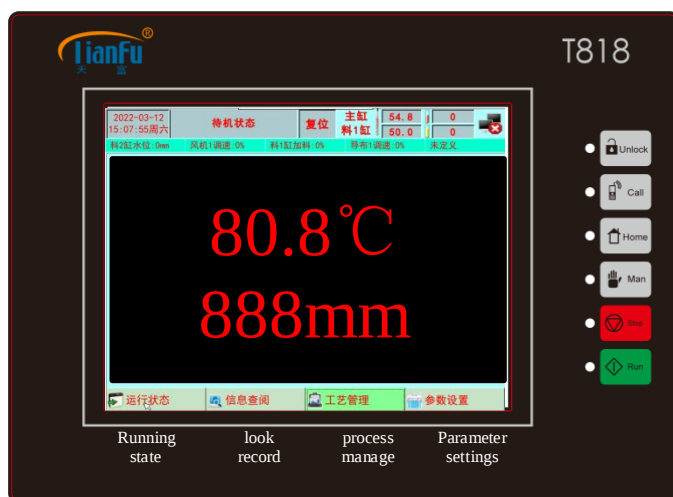
1.1 Display window and operation keyboard



1.1.2 Introduction to keyboard operation keys:

	Unlock/lock button, used for password release or password lock, indicator light on to indicate unlock status.
	Central control contact key, used for on-site operators to call the central control room
	Return to the main interface window operation key, any status window, press this key to return to the main interface.
	Enter the manual single step operation key, press this key to directly enter the computer manual single step operation interface.
	Pause/Stop button, in the running state, the first press of this button puts the computer in a paused state, the second press of this button stops the computer from running, and the "Stop" indicator light is on.
	Run button, press this button to start the computer, and the "Run" indicator light will turn on (the computer is in a paused state, and the "Run" indicator light will flash)

1.2 Screen saver display (optional display of temperature or water level, optional simultaneous display)



1.3 Power on/off and reset/restart

1.3.1 Power on/off: The computer only enters the initial main interface (desktop) after the host is connected to an AC220V power supply; If the computer was in a running or stopped state before power failure and exits, it will enter the state interface before power failure when powered on again, and the AC220V power supply will be disconnected when turned off.

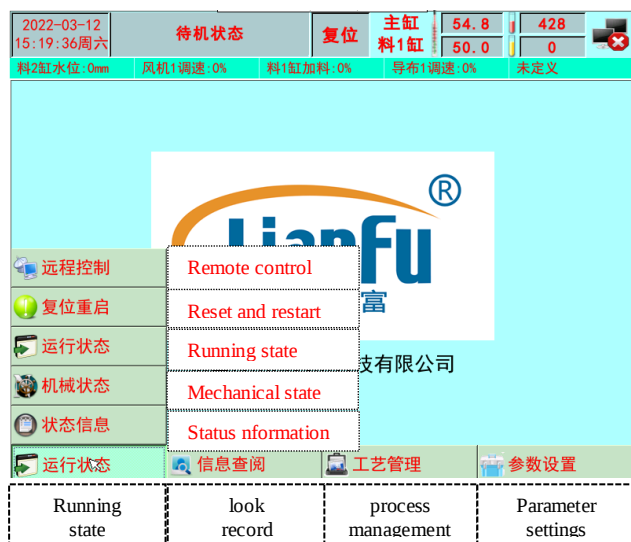
1.3.2 Reset and restart: Enter from the "Running Status" menu, with two options: reset and restart.

Reset is the process data that has not ended running before the computer is reset;
Restarting is the process of modifying parameters and restarting the computer system to make the parameters take effect.

Chapter two Menu operation and introduction

2.1 Operation menu

2.1.1 running state



Remote control(远程控制): Remote login and control of dyeing machine computer through computer network, which can be used for remote service assistance.

Reset and restart(复位重启): Select 'Restart System' or reset the currently unfinished process data.

Running state (运行状态): Enter the currently running process window interface, manually operate on the computer, and call the central control for communication.

Mechanical state(机械状态): View the graphical window interface of the device controlled by this computer.

Status information (状态信息): View the detailed input and output information window interface of the currently running computer.

2.1.2 Information search



Version information(版本信息): View the local software version and operation help information..

Energy consumption statistics(能耗统计): Query statistical information on water, electricity, and gas energy consumption data.

Alarm record(报警记录): Enter the time, content, current and

Curve recording(曲线记录): Temperature, water level, feeding, and cloth head curve record query.

Batch record(批次记录): Query the current and historical batch records of the running process.

High water weight(水高水重): Query the corresponding table of water weight conversion and water height for the main cylinder, material cylinder 1, material cylinder 2, and auxiliary cylinder.

2.1.3 Process management

2022-03-12 15:23:44周六	待机状态	复位	主缸 料1缸	54.8 50.0	428 0	
料2缸水位: 0mm	风机1调速: 0%	料1缸加料: 0%	导布1调速: 0%	未定义		
工艺名称	步数	创建时间	Process looking	工艺上锁		
1 1-PH测控	6	2022-03-14:14:14	Operation process	运行工艺		
2 1-PH测量	5	2022-03-14:14:14	New Process	新建工艺		
3 1	3	2022-03-14:14:14	Delete process	删除工艺		
4 2-寻找布头	11	2022-03-14:14:14	Copying process	复制工艺		
5 3-副缸加料	5	2022-03-14:14:14	Process name change	工艺改名		
6 4-加料	27	2022-03-14:14:14	Editing process	编辑工艺		
7 4-温控-升一定量	6	2022-03-14:14:14	Computer to USB	电脑传U盘		
8 4-温控-升	4	2022-03-14:14:14	USB to computer	U盘传电脑		
9 5-温控-升降	9	2022-03-14:14:14				
10 6-工艺循环	11	2022-03-14:14:14				
11 6-温控进排水	10	2022-03-14:14:14				
12 7-温控进排水加料回滴	38	2022-03-14:14:14				
返回	上一页					

Operation process(运行工艺): Select the process to be put into operation in process management.

New Process(新建工艺): Create a new process.

Delete process(删除工艺): Select process deletion in process management.

Copying process(复制工艺): Select process replication in process management.

Process name change(工艺改名): Select the process modification name in process management.

Editing process(编辑工艺): Select the process in process management for modification.

Computer to USB drive/USB drive to computer(电脑传 U 盘/U 盘传电脑): Upload USB technology to computer or download computer technology to USB drive.

2.1.4Parameter settings

2022-03-12 15:25:03周六	待机状态	复位	主缸 料1缸	54.8 50.0	428 0	
料2缸水位: 0mm	风机1调速: 0%	料1缸加料: 0%	导布1调速: 0%	未定义		
 Equipment parameters system parameter Functional parameters Correction parameters Define parameters Convert data Output testing Software loading 设备参数 功能参数 系统参数 校正参数 定义参数 转换数据 输出测试 软件装载						
运行状态	信息查询	工艺管理	参数设置			
Running state	look record	process management	Parameter settings			

Equipment parameters(设备参数): Including device configuration, control function configuration, and mechanical graphic selection, all of which are set in this parameter item.

Functional parameters(功能参数): The parameter settings for control functions such as main cylinder, material cylinder 1, material cylinder 2, auxiliary cylinder, rotating pumps, timing and counting, and call alarm are all set under this parameter item.

system parameter(系统参数): Setting communication parameters with PLC and upper level, as well as program control and language selection settings.

Correction parameters(校正参数): Temperature correction, as well as calibration settings or range modifications for current input and output such as water level and pressure.

Define parameters(定义参数): Modification and setting of switch and analog input/output, time setting, password setting, call name, etc.

Convert data(转换数据): Corresponding table for water weight conversion and water height conversion of main cylinder, material cylinder 1, material cylinder 2, and auxiliary cylinder, as well as data settings for conversion of main pump, fan, and guide wire current and speed.

Output testing(输出测试): Switching output and current output testing.

Software loading(软件装载): Software updates, upgrades, downloads, as well as parameter backup, default recovery, and USB copy operations.

Chapter three Process Editing and Operation

3.1 Introduction to main program, additional program, and additional program:

- a) The main program is the control program for editing the entire dyeing process, known as the dyeing process;
- b) An additional program is a pre edited process, which is an independent program that can also run independently and has a name. It can be called when the running dyeing process reaches the "sampling function" step. There can be multiple additional programs available for calling, which can reduce the number of editing steps in the main process;
- c) The additional program is an editor that sets a fixed number of process steps before the final and ending steps of the dyeing process. It can only be called and used when the current process reaches the "sampling function" step. If it is not called and used during sampling, the dyeing process will not execute these process steps.

3.2 The working mode of the main function, synchronization (secondary, parallel) function:

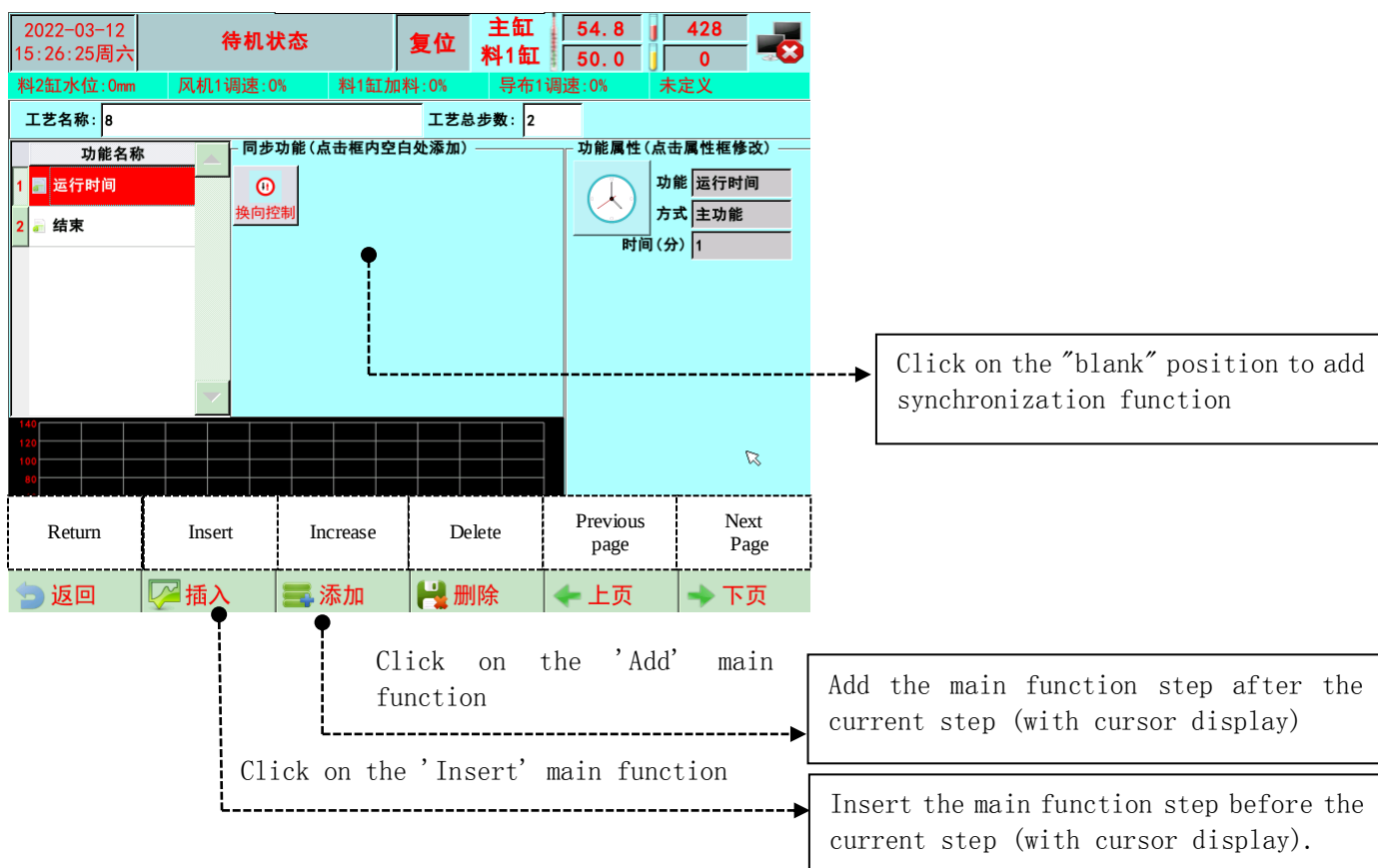
When editing the process, determine the working mode of the "control function" during operation according to the process requirements, which can be divided into two working modes: main function and synchronous function;

- ① The main function is front-end work, which works independently. Only when the conditions are met can the next main function work be executed. One main function can be accompanied by multiple synchronization functions (limited to 20);
- ② The synchronization function works in the background, but it is attached to the main function and runs synchronously with it, and cannot work independently; But the synchronization function can be saved in two ways: synchronized with the current step or synchronized with all subsequent main function steps;
 - a) Synchronize with the current step and all subsequent main function steps. When the main function ends, the synchronization function automatically moves to the next step and runs synchronously with the next main function until there is an end work instruction or the conditions are met before stopping the work. Otherwise, the work continues until the end of the entire process program.
 - b) Only run synchronously with the current step; When the main function is not completed but certain conditions are met, the synchronization function will end working; When the main function ends, the synchronization function does not end working; We need to wait for the

synchronization function to reach the end condition (whether the main function needs to wait for the synchronization function to end and enter the next step can be selected in the system parameters), that is, only when both the main function and the synchronization function meet the end condition, the process will enter the next step.

③ The addition and insertion of main functions, as well as the addition of synchronization functions:

The synchronization function is performed after the editing of the main function step is completed through the buttons "Insert" and "Add";



Click on the "blank" position to add synchronization function

Click on the 'Add' main function

Add the main function step after the current step (with cursor display)

Click on the 'Insert' main function

Insert the main function step before the current step (with cursor display).

3.3 Permission for process editing:

- ① To edit a process, operators with the "Edit Process Password" permission are required to edit, modify, copy, or delete the process. The process password can be set in the password management parameter of "Define Parameters" in the "Parameter Settings",  When the light is on, it means that the password has been entered to unlock and the operation is authorized. It is in an unlocked state. Please try again, Press  key,  The light is off, indicating that it is locked and there is no permission to perform operations (default password level or below allows operations).
- ② T818/919 Computer password level and permission allocation

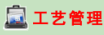
level	Password permission	Permission allocation instructions	Password allocation	Password usage object	explain
1	Operation process		2020	Provide on-site use for end customers	The default password free permission for the computer at the factory is "Stop Process"
2	Suspend the process		2021		
3	Stop the process		2022		
4	Jumping operation		2023		
5	Online modification		2024		
6	Editing process	Process management/editing, process upload/download	2025		
7	Ordinary parameters	Functional parameters, data conversion, output testing	*****	Installation and debugging personnel from the company's technical service department, as well as equipment manufacturers for installation and debugging or use by end customer management	Request separately
8	system parameter	System parameter settings and copying, software loading	*****		
9	Input/output	Define parameter settings	*****		
10	Correction settings	Calibration parameter settings	*****		
11	Equipment control	Equipment parameter settings	*****		
12	Junior Management		*****	Leadership level of the company's software management department	Technical Service Manager, Software Testing, and Maintenance Room Personnel
13	Intermediate level management		*****		
14	Advanced Management		*****	Development Engineer Management Level Usage	
15	Management Premium		*****		

3.4 Operation of process editing:

- ① Unlocking/locking operation (already in unlocked state or default operation permission with editing permission for parameter settings, no need to unlock):

During the operation, when the system automatically pops up a password input box, or directly Press  key, Pop up the password input box, enter the password of the operation permission level, and you will have the permission of the operation permission level password. You can use the password of each operation permission level to enter.

- ② Process name:
- ③ It can be composed of letters, numbers, and symbols to form process names, and can also be composed of Chinese names through the computer's built-in "intelligent Pinyin input method".
- ④ Enter the editing process:

Click directly  Enter the process management page; As shown in the figure on the right, perform operations such as "create, copy, delete one (or one step), rename, view, modify", etc.

Operation suggestion: Before entering the editing process, click on  Key unlock!

3.5 Editing process:

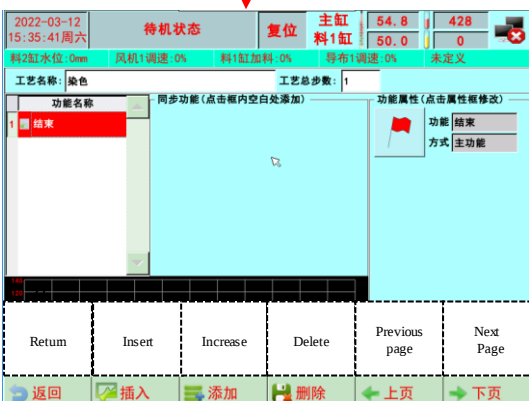
3.5.1 New process steps



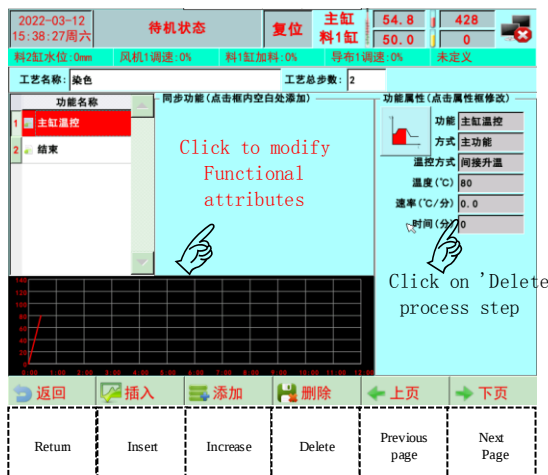
 process management



 Operation process



 Click on 'Insert, Add' first
Process steps (main function)



3.6 Operation process

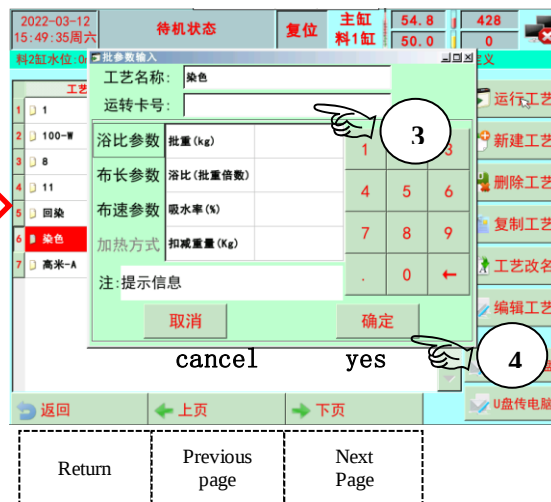
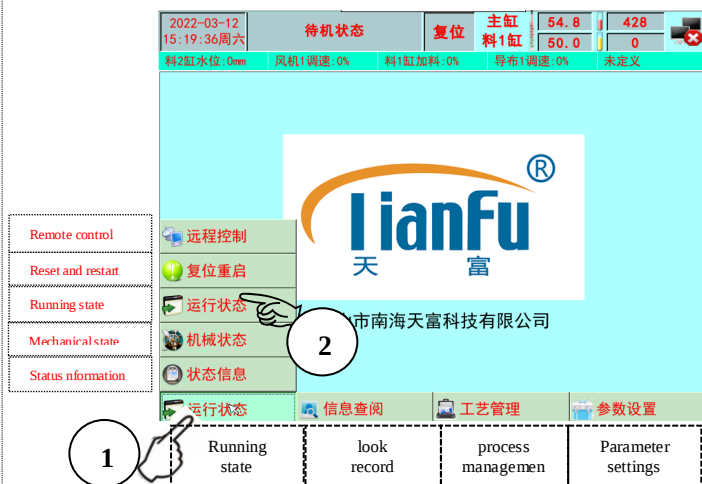
3.6.1 Run a new process

Running a new process: There are 2 ways to enter

The first method is to enter the "Run Process" operation step by clicking on the "Process Management" menu in the main window interface of the computer. As shown in the following figure:



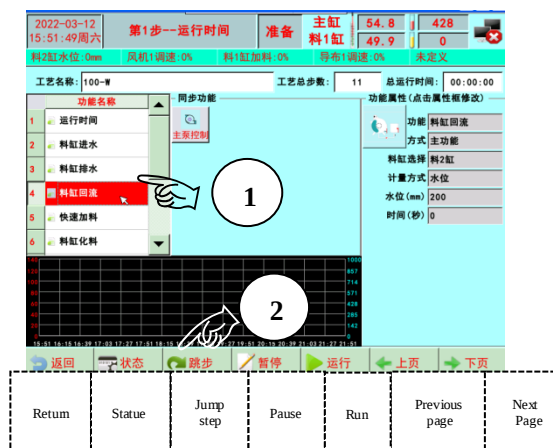
The second method is to enter the "Running Process" operation steps by clicking on the "Running Status" menu in the main window interface of the computer. As shown in the following figure:



Jumping operation process

Without running the process, start running directly from a certain step in the process. First, select the process to be run, and then choose which step to jump to. The operation steps are shown in the figure on the right:

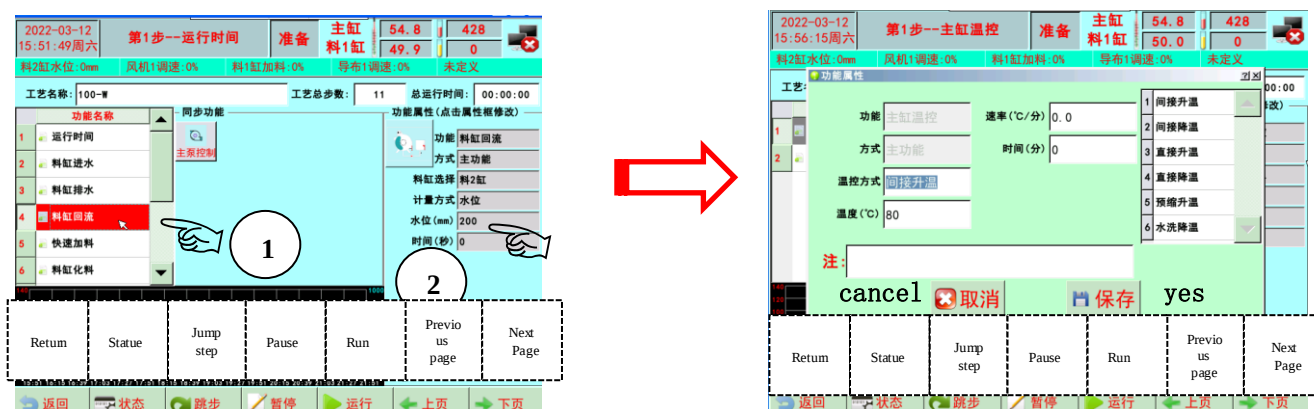
During the process of operation, skip one or several steps in the process and continue running. Click the drop-down moving bar or the up and down buttons to select which step to jump to. The operation steps are shown in the figure on the right.



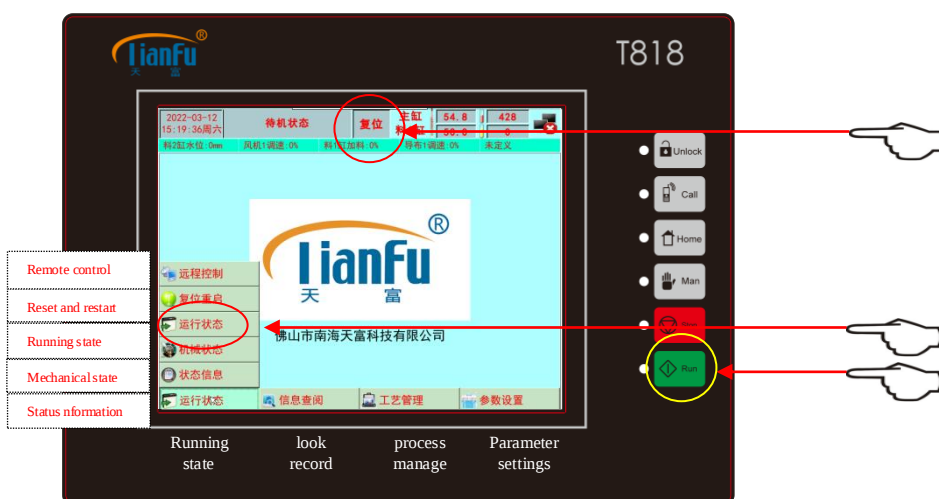
Tip: Jump operation is possible in running, stopping, and pausing states!

3.6.2 Modify the running process (online modification)

During the process of process operation, temporary adjustments are made to the running process data to modify it according to the needs of the dyeing process and actual situation. The modified process data is only valid for this operation, and after the operation is completed, the original process data will be restored to the data before modification; Select the process step to be modified, click on the attribute box of the process step (bottom left image), then modify the attribute item, click save (bottom right image), and the operation is as shown in the following figure:



3.6.3 Process interruption before operation or unfinished process exit (three paths to enter), as shown in the following figure:



3.6.4 The operational relationship between the "run, pause, stop, reset" states of a computer

Stop state: All control functions have stopped working;

Pause state: The main function step and synchronization (merging) function step stop working, while the synchronization (secondary) function step remains running;

Reset state: Press the key again in the stopped state or select "Reset Process" from the "Reset Restart" menu.

3.7 Computer manual single step operation and manipulation

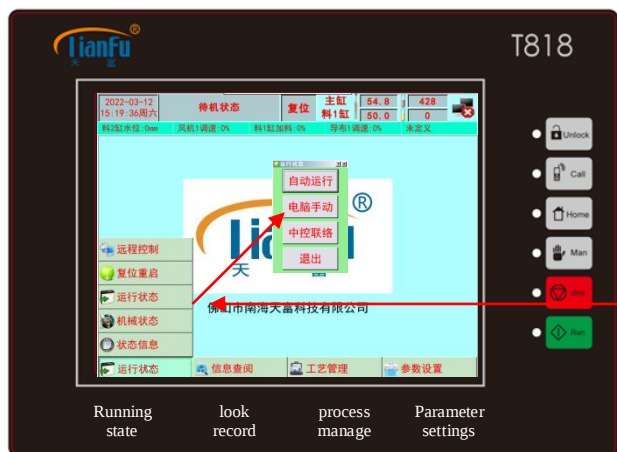
The computer provides 30 manual operation buttons (which require setting the parameter "Enable Single Step Computer Manual Operation"), enabling manual execution of one or more control functions without the tedious operation of editing processes;

When the computer automatically runs the main cylinder function, it will limit the manual operation of the main cylinder function and only allow the operation of material 1, material 2 or the auxiliary cylinder function. However, when the computer is automatically running a certain function of material 1, material 2 or the auxiliary cylinder, manual operation of that material 1, material 2 or the auxiliary cylinder cannot be performed at this time.

Press  key, Before entering the manual operation button interface on the computer and performing manual control operations, it is necessary to customize the button control functions and set attribute item data;

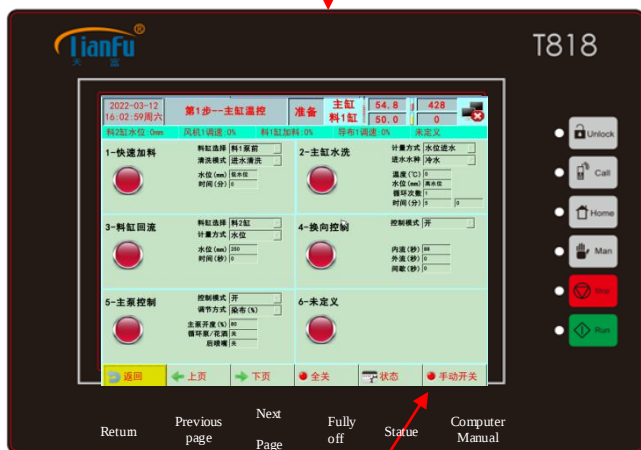
When  the light on the computer is flashing, it indicates that there is a manual function running. If you switch to automatic computer operation at this time, the computer will forcibly turn off the partially manually running functions that are limited to it;

3.7.1 Manually operate the computer to enter



Method 1: Click on the computer " "key, Enter 'Computer Manual'

Method 2: Enter 'Computer Manual' from 'Running State' "



Enter manual switch control (measuring cloth head off, blocking cloth off, cleaning blocking cloth) and measuring cloth length counting

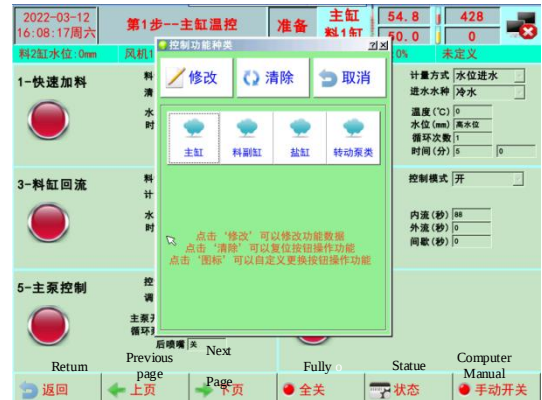
3.7.2 Button customization operation



Click directly on the blank space of the "Undefined" button, as shown in the above figure.

Pop up a customizable function menu and select the control you want to define

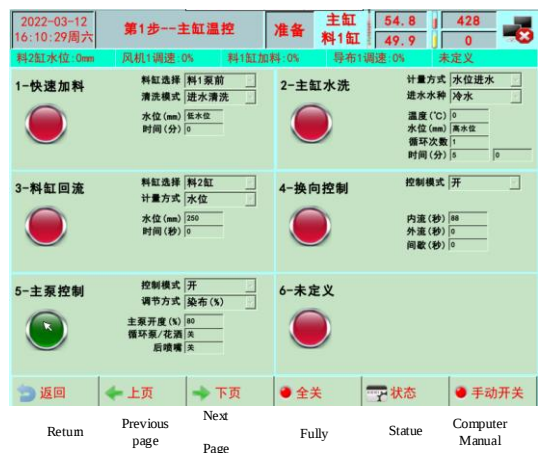
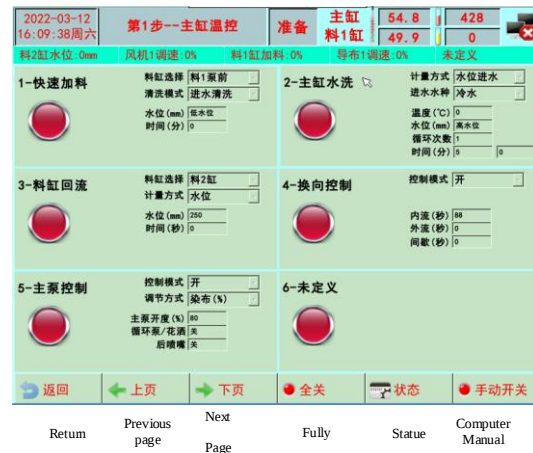
3.7.3 Button modification, clearing, and replacement operations



Click on the attribute item area of the "Defined" control button,

Pop up a control box that can be modified or cleared, as shown in the

3.7.4 Button operation and stop operation



Click on the "Defined" control button to run or stop the control function, and the button will turn green (working state), as shown in the figure on the right.

When manually operating a computer, multiple functions can be performed. To disable all manual control functions, in addition to disabling them one by one, you can also click the "Close All" button to disable all manual outputs.

佛山市南海天富科技有限公司

FOSHAN NANHAI TIANFU TECHNOLOGY CO., LTD.

address: 广东省佛山市南海区狮山镇桃园东路 87 号

Add: No. 87, Taoyuan East Road, Shishan Town, Nanhai District, Foshan City, Guangdong Province, China

Tel: 86-757-81201908 86-757-81201900 86-757-81201902

Fax: 86-757-81201905

WeChat Number: fstenfull

Http: [//www.tenfull.com](http://www.tenfull.com)

E-mail: fstianfu@vip.163.com

Directly affiliated companies and overseas offices

Hangzhou Tianfudetai Information Technology Co., Ltd

HANGZHOU TIANFU TEXTILE INFORMATION TECHNOLOGY CO., LTD.

地址: Room 1405-1406, Building 3, Xingyao Science and Technology Park, Binjiang District, Hangzhou City

Http: [//www.hztianfu.com.cn](http://www.hztianfu.com.cn)

Shaoxing Office

Telephone: 86-13575589777

wuxi Office

Telephone: 86-13702743832

Shishi Office

Telephone: 86-13506082583

Shandong Office

Telephone: 86-13754659949

Puning Office

Telephone: 86-13923543617

Hubei Office

电话: 86-13301516531



Follow the official WeChat account and Tiktok of "Tianfu Technology "

After sales service hotline: 0757-81201902