ENGLISH

L-1 Series
INSTRUCTION MANUAL
(Electrical)

●Preface

Thank you for purchasing this product, In order to make use of product better, Before installing and testing, please read the operating instructions and the sewing equipment specification carefully, to use correctly, and be installed and tested by professionals.

Note:

This product is only applicable to the specified range of sewing equipments, please do not use for other purposes.

Our company has the right of final interpretation of this manual.

If there is any doubt when using product or any comments or suggestions of our products and services, please feel free to contact us!

Due to upgrade products, features and specifications are subject to change without notice.

The usage of the operating instructions:

The operating instructions provide guidance information based on user's requirements.

The information involves equipments and other usage occasions, transportation, installation, use and maintenance.

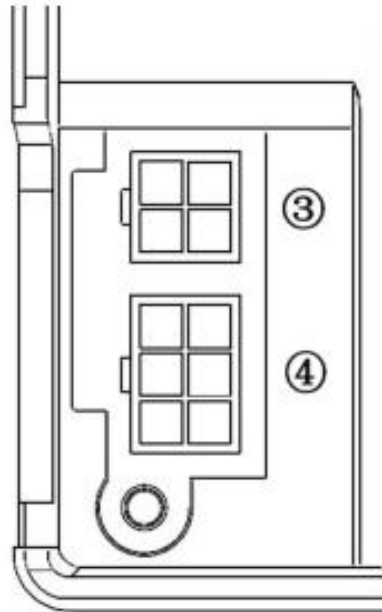The operating instructions are intended for users and technical staff.

●Safety Instructions

(1) Make sure that the controller switch button is off before plugging in power.

(2) Make sure that all the motor connector cord is plugged in before the switch button turn on, otherwise it will be an error.

(3) Connecting plug is one to one, be sure to match each other when make connection. Do not be excessive force when inserting to avoid damage to the system.

(4) The motor lines do not be pressed or excessive distortion, to avoid damage to the signal line connectors.

(5) Do not disassemble the controller without professionals, to avoid accidents.

Caution: Inside of the controller and interface wire are with strong power, please do not touch, in order to avoid an electric shock!
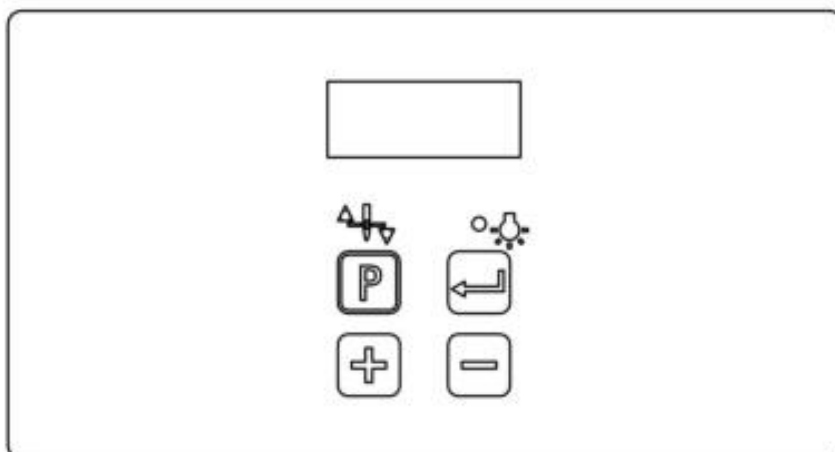
● **Port definition**

①   **Electric outlet**
②   **Encoding outlet**
③   **Pedal switch Socket**
④   **LED light outlet**

※ **Please follow the interface definition and terminal Color phase connection.**

● **Operation panel description**

① [P] : Under the working model, switch the UP-down needle position; under the parameter model, setting the parameter.

② [↵] : Under the working model, open and close the LED ligth; under the parameter model, save the parameter。

③ [+] [−] : Under the working model, adjust the motor speed, under the parameter model, choice and adjust parameter.

● Parameter adjusting and example

1.1 The panel is four ditigal nixietube display

Adjust the speed by press the ⊕ and ⊖ key when in standby interface

1.2 In standby interface ,press the Ⓟ key ,when the up needle position indicator light is on ,it is on up needle stop , when the down needle position indicator light is on , it is on down position stop, when the indicator light is off ,the needle position function turn off.

1.3 In standby interface , press the ↵ key , can turn on/off the machine head light.

1.4 Enter in and change the system parameter：

①When the power is on ,press the Ⓟ key for some seconds ,then press the ⊕ key , it enters into the parameter mode. The nixietube shows "**P-00**"

②Press the ⊕ or ⊖ key ,can change the parameter

③After choose the parameter , press the Ⓟ key ,enter into the parameter ,then can change the value of the parameter by ⊕ or ⊖ key.

④Press the ↵ key save the value

1.5 Enter administrator mode to modify system parameters：

①When the power is on ,press the Ⓟ key for some seconds ,then press the ⊖ key , Input password enters into the administrator mode. The nixietube shows "**P-00**"

②Press the ⊕ or ⊖ key ,can change the parameter

③After choose the parameter , press the Ⓟ key ,enter into the parameter ,then can change the value of the parameter by ⊕ or ⊖ key.

④Press the ↵ key save the value

1.6 Reset：

①When the power is on ,press the "Ⓟ" key for some seconds ,then press the "⊕" key , it enters into the parameter mode. ②Press the "↵" key for three seconds to reset

●Error code and parameter

List 1: Error code

Error code	Meaning	Possible problem
Er01	The error of needle position	①The motor hall is broken ②The hand-wheel magnet fall off ③The connecting of 9 needle signal line is not good
Er02	No foot signal detected	①Poor contact or damage of foot line
Er03	The hall or phase of motor is wrong.	①The connecting of 9 needle signal line is not good ②The motor hall is broken.
Er04	The protection of locked-rotor	①The motor is overloading. ②The connecting of motor power line is not good.
Er05	The hardware is over-current.	①The motor is overloading. ②The connecting of motor signal line is not good.
Er07	The serial communication is wrong.	①The line connecting of control box is no good.
Er08	Dump switch error	①Equipment dumping

List 2: Parameter

No.	Name	Parameter range	Leave-factory number	Function
P-01	The locked highest speed	200~5000	4000	The locked highest speed
P-02	The setting of motor positive and negative rotate	0~1	0	0 means negative rotate, 1 means positive rotate,
P-03	The angle of down stop	0~23	12	The angle of down stop
P-04	The starting speed	200~800	200	The starting speed
P-05	Pedal curve	1~100	50	If it is greater than 50, it is a curve of up throw and if it is less than 50, it is a curve of down throw
P-06	stop speed	1~20	8	Stopping speed of motor

P-07				Retention parameter
P-08	Stop to find the needle position	0~1	1	Stop to find the needle position
P-09				Retention parameter
P-10	Automatic Mode switch	0~1	0	0: normal 1: Automatic
P-11	Motor running time	1~99	5	Automatic running and Motor running time
P-12	Motor stop time	1~99	5	Automatic running and motor stop time
P-13				Retention parameter
P-14	Maximum current	200~999	750	Motor acceleration
P-15	Mainboard version number			Inspect Mainboard version number
P-16	Panel version number			Inspect Panel version number
P-17	password	0~9999	2013	Password for advanced parameters
P-18	Needle filling method	0~3	3	0:No needling 1:Half stitch 2:Fill a needle 3:Continuous needling
P-29	Starting voltage	180~999	250	Motor Starting voltage point
P-30	Accelerating starting voltage	180~999	300	Motor Starting acceleration voltage point （5V=1024）
P-31	Maximum speed voltage	300~1000	750	Motor reaches the maximum speed voltage point （5V=1024）
P-32	Safety switch detection	0~1	1	1: ON 0: OFF