



HL787T2 Instructions v1.3


















1. Safety instruction

- Please read the operation manual and related sewing machinery datasheet carefully before correct use.
- (1) Power voltage and frequency: please refer to motor and control box nameplate.
 - (2) Interference from electromagnetic wave: please keep far away strong magnetic or high radiation environment in order to avoid obstructions and make to misoperation.
 - (3) Grounding: to avoid the noise obstructions or leakage of electricity accident(including sewing machine,motor,control box and positioner).
 - (4) Please make sure power off at least 1min and then can open control box cover, because there are dangerous high voltage.
 - (5) Please turn off the power while repairing or wearing needle in order to protect operator's safety.

1.4  Used where potential dangers exist.


















 Used where high voltage and electric danger exist.

2. Operation box use

Function	Symbol	Description
Front Reinforcing-sewing		circulation: front/Reinforcing-sewing / front double/Reinforcing-sewing /front Four solid Reinforcing-sewing /turn off
Back Reinforcing-sewing		circulation: back/Reinforcing-sewing / back double/Reinforcing-sewing /back Four solid Reinforcing-sewing /turn off
Continuous Reinforcing-sewing (debug)		short press:circulation:w sewing Free seam long press:1. Debug mode shortcut key in free seam mode (long press for more than 3 seconds) 2. In fixed-length seam mode, try teaching mode (press for longer than 1 second)
Scissors function key/Thread clamp function		short press:Scissors function on and off. long press:Thread clamp function on and off.
Stop needle selection key/soft start		short press:Up and down needle selection key long press: starting function on and off
add-subtract key		1. Speed adjustment key. Press continuously to increase/decrease the sewing speed, and the display screen will automatically switch to the speed setting value. 2. According to several numerical and subtract 3. The parameter value plus or minus 4. Pattern edit value add and subtract
Presser foot function cycle key/ Trigger function key Settings		Short press:Foot presser function cycle: middle stop lifting foot/cutting line after lifting foot/middle stop cutting line after lifting foot/closing long press:1. Effective (on/off) in fixed-length seam mode (one-section seam, multi-section seam, multi-section seam self-knitting pattern) 2. W seam mode Open automatically
Parameters setting key		Enter the level of different parameters (parameters are divided into 2) sewing set interface under short press P into the parameter interface, the level for the 1 parameter display parameter list. Long press the "P" button in the sewing setting interface to enter the "password input interface". After entering the correct maintenance password, press the "P" button to enter the "parameters interface". At this time, the parameters of level I and II in the parameter list are displayed_password:1111
Identify key		1. Identify key 2. for the belt clip line function model, the strength of long press this button to display the thread clamp, LCD display "[_3]", press the key again to exit
Left or right key		Under the sewing interface, "3333" can be adjusted left and right.
Needle pitch adjustment key		Under the sewing interface, adjust the needle pitch
Midway press foot height key		Under the sewing interface, adjust the height of the press foot midway
Fixed length sewing mode key		Loop: Single seam/Multi seam/Pattern Multi seam/Free seam
beauty stitch		beauty stitch on and off.
Reset setting		Short press: Enter piece rate (JJ) mode Under the standby interface, press Reset key 1.5 seconds to enter the "restoration of the factory setting interface", press the "add-subtract key" to "yes", and then press "S" to confirm
Press foot lift switch		Open/Off the foot lift function
Pattern sewing switch key		Short press: Under the sewing interface, switch the pattern mode(d1~d9) Long press: Under the free sewing interface, enter the pattern editing mode

Notw: The parameters in the table are standardized.If have any discrepancy,based on reality

3. Mode Settings

- Debug mode:**
- After entering the normal sewing mode, press the right side 4 seconds "", enter
 - debug mode.If you want this pattern to return to normal mode, press "" key to exit into normal mode
- Stitch length Adjustment Mode:** After entering sewing mode normally, long press ""3seconds, Entering debug mode, press "" or "", switch to parameter P-6, press "" then the machine can be zero position correction,switch to parameter P-7, press "" can correct the go-stitch length; switch to parameter P-8, press "" can correct the reverse-stitch length. All the corrections are save to exit by press "".
- Restore Factory settings:**
- Long press "" enter parameter interface, enter "P79" will displays "0". Press "+" to "3". Press "" display "no". Then press "-" to "yes". Press ""
 - Under the standby interface, press Reset key 1.5 seconds to enter the "restoration of the factory setting interface", press the "add-subtract key" to "yes", and then press "S" to confirm
- Pattern editing setting interface:** After entering the normal sewing mode, press the "" Key for 2 seconds, screen display "d1", press "+" toggle the d1~d9 pattern. Select the pattern to be set Press "" to enter the setting, screen display "1 3.0 01". In this case, the number of stitches and the stitch length of the first stage can be carried out. Press left or right to select the item to be set. The first paragraph is set up. Press left or right to switch to the left, the number flashes. Press the plus or minus key to switch to other segments settings. If the current number of stitches is zero, the next setting can not be made; After all the needle distance and frame count settings are complete, press the "" key to save and return to the "d1" screen. Press the "" key to exit without saving. If you want this pattern to return to normal mode, press "" key to exit into normal mode.

4. Error codes

Error Code	Contents	Possible reasons	Checking and treatment
E011 E012	Motor signal error	Motor position sensor signal failure	If electric engine plug is well contacted; if electric engine signal detecting device has been broken; if sewing machine handwheel correctly installed.
E021 E023	Motor overload	motor stall motor overload	If electric engine plug is well contacted; if machine head or thread-cutting mechanism has been blocked completely; if materials are too thick; Electrical signal detection signal whether the normal.
E022	Thread cutter stuck	Thread cutter stuck	Check whether the head or cutting mechanism is stuck. Check whether the timing and location of the Thread trimming are correct
E101	Hardware drivers fault	Current detection abnormal Driving hardware error	Current detection loop system is working properly;Whether the damage to the device driver.
E111 E112	Voltage too high	High input voltage Brake circuit fault Voltage detection error	System into line voltage is too high; Braking resistance are working properly; System voltage detection circuit are working properly.
E121 E122	Voltage too low	Actual low voltage Voltage detection is wrong	If the voltage on the inlet wire is too low Whether the system voltage detection circuit the normal work.
E131	Current circuit fault	Current detection abnormal	Current detection loop system is working properly.
E133	Oz circuit fault	Oz circuit fault	Oz circuit system is working properly.
E134	DBFLT malfunction	Automatic resistance circuit failure	Brake resistor plug is in good contact Brake resistance is damaged
E201	over current	Current detection error	Current detection loop system is working properly Electrical signal is normal.
E211 E212	Abnormal motor operation	Current or voltage detection error	If electric engine plug is well contacted If electric engine signal
E301	Communication error	Sei circuit error	if operation box plug is well contacted; if operation box components are damaged.
E302	Operation inner failure	Sei circuit error	check whether the operating box is damaged.
E303	SPI Communication breakdown	Sei circuit error	check whether the main control board is damaged.
E304	HMI From the main chip communication failure	Sei circuit error	check whether the operating box is damaged.
E402	Pedal ID fault	Pedal verification fault	Pedal connection is loosen.
E403	Pedal zero position fault	The pedal zero position over range	The pedal is damaged or it is not under stop state when correction
E501	Safety switch fault	Safety switch effective	Put down the heat or check turned up switch.
E502	Fuel fault alarm	Fuel fault alarm	Add oil tips
E601	Hardware overcurrent failure	Needle distance presser foot motor hardware overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E602	Software overcurrent failure	Needle distance presser foot motor software overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E603	Current detection loop fault	Needle distance presser foot motor current detection circuit overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E604	Mechanical zero position finding fault	Initial mechanical angle of needle distance presser foot motor	Check if the needle distance presser foot motor plug is in good connected
E605	Motor stall	Needle distance presser foot motor stall	Check if the needle distance presser foot motor plug is in good contact Is there any sticking point in the machinery.
E606	Motor open circuit failure	Needle distance presser foot motor winding circuit	Current detection loop system is working properly Whether the damage to the device driver.
E607	Hardware overcurrent failure	Thread trimming motor hardware overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E608	Software overcurrent failure	Thread trimming motor software overcurrent	Current detection loop system is working properly Whether the damage to the device driver.
E609	Current detection loop fault	Thread trimming motor current detection loop failure	Current detection loop system is working properly Whether the damage to the device driver.
E610	Mechanical zero position finding fault	The initial mechanical angle of thread trimming motor failure	Check if the thread trimming motor plug is in good connected
E611	Motor stall	Thread trimming motor stall	Check if the thread trimming motor plug is in good contact; Is there any sticking point in the machinery
E612	Motor open circuit failure	Thread trimming motor winding circuit	Current detection loop system is working properly Whether the damage to the device driver.
E701	Bottom line detection alarm	The bottom line sensor does not detect the bottom line	Replace the bottom line or check the bottom line sensor
P.oFF	Power off Display	Power off	Wait for power supply to resume.
EWAL	Trial expired	Trial expired	Contact the dealer processing
L.bob	The bottom line tips	The bottom line count value is negative	After replacing the bottom line, press P to cancel the Alert Status
P.bob	Piece rate reminder	The number of counting is 0	Press S key to enter the interface, and long press "front seam" button for more than 2 seconds to cancel the prompt state To disable the piece rate function, change the P35 parameter value to 0

5. System Parameter Table:

Parameter code	Project	Content	Setting range	step pitch	The default value	Level
P-01	Sewing speed	Set sewing speed	200-3000(rpm)	100	3000	I
P-02	Soft-start function	1-9: Soft start stitches	0-9	1	2	I
P-04	Fixed-length seam sewing speed	Set fixed-length seam sewing speed	200-4000(rpm)	100	3000	I
P-06	Zero pitch correction value	When the needle pitch is set to 0mm, fine the value so that the actual sewing needle pitch is zero	50-150	1	100	I
P-07	Positive needle distance correction value	Magnification positive sewing distance (Sewing needle fixed distance)	50-150(%)	1	100	I
P-08	Anti-needle distance correction value	Enlarge reverse stitches Distance Scale (Sewing needle fixed distance)	50-150(%)	1	100	I
P-09	Back stitch speed limitation	can keep needle from breaking while backstitching	500-1500(rpm)	50	800	I
P-10	Set the length of the stitch from the set number	0:Set the number of stitches to set the value 1:When the length is set to self-made, the number is the number of the pattern, that is, the total number of stitches is the number of stitches × set the value	01	1	1	I
P-12	The first section angle of the presser foot lift	The first section angle of the presser foot lift	0-100	1	29	II
P-13	Maximum height of presser foot lifting (valid stepping)	Setting Maximum height of presser foot lifting after trimming	0-100	1	65	II
P-14	Speed of presser foot lifting (valid stepping)	Stepping speed of presser foot lifting	20-500(rpm)	10	400	II
P-15	Speed of presser foot releasing (valid stepping)	Stepping speed of presser foot releasing	20-500(rpm)	10	400	II
P-16	The first section angle of the presser foot down	The first section angle of the presser foot down	0-100	1	31	II
P-17	Cut and loosen duty cycle	Cutting line for electromagnet: When the shear line loose line duty ratio (too small will affect the shear line electromagnet suction strength) Cutting line for step:Loose line efforts to adjust the (step)	0-100	1	50	II
P-18	Front reinforcing-sewing setting after the front fixed joint is connected	Immediately after the end of front reinforcing-sewing, step on the cutting line without the function setting of back reinforcing-sewing 0: unavailable 1: available	0/1	1	0	I
P-19	Solid after before sewing stop	0: unavailable 1: available	0/1	1	0	I
P-20	Function selection of machine head button	0: invalid 1: Manual thread cutting while standby 2: Manual presser foot after trimming	0/1/2	1	0	I
P-21	soft start speed 1	speed of the 1st needle of soft start	100-3000(rpm)	50	400	I
P-22	soft start speed 2	speed of the 2nd needle of soft start	100-3000(rpm)	50	1000	I
P-23	soft start speed 3	speed of the 3rd-9th needle of soft start	100-3000(rpm)	50	1500	I
P-24	Presser foot soft lowering function	Setting to protect damaged the fabric to slow down the presser foot lowering speed	0/1	1	1	I
P-25	Presser foot lift function	0: unavailable 1: available	0/1/2	1	1	I
P-26	Function of over thickness	Setting the function of over thickness 0: unavailable 1: available	0/1	1	0	I

Parameter code	Project	Content	Setting range	step pitch	The default value	Level
P-27	Power on and positioning	The function setting of automatically finding the needle position when the power is on 0: unavailable 1: available	0/1	1	0	I
P-28	signal mode for turn/lift switch	Setting of signal mode of turn/lift switch of machine head 0: always open 1: always close 2: forbid a protection	0/1/2	1	0	I
P-29	Presser foot soft lowering time	To set presser foot soft lowering time The longer time the lower speed of the presser foot	100-500 (ms)	5	50	II
P-30	Bottom line counting	0: unavailable 1: available	0/1	1	0	I
P-31	Bottom line initial value setting	Bottom line initial value setting	200-4000 (0.1m)	20	1600	I
P-33	Front fixed sewing ABA mode selection	0: unavailable 1: available	0/1	1	0	I
P-34	Standard joint speed mode selection	Select 0 automatic for standard joint speed mode; 1 pedal control	0/1	1	0	II
P-35	multiple ratio of counting by piece	Setting of multiple ratio of counting by piece	0-50	1	0	I
P-36	Setting initial value of counting by piece	Setting initial value of counting by piece	0-1000	5	100	I
P-37	Time of thread wiper	Time of thread wiper	0-800 (ms)	10	40	II
P-38	Setting function of choosing counting by piece	0: add 1: subtract	0-1	1	0	I
P-39	Turn off time before presser foot soft drop	Turn off time before presser foot soft drop	0-50	1	12	I
P-40	Electronic loose wire holding time	Electronic loose wire holding time	0-10	1	5	III
P-41	Low speed	The lowest speed of pedal	100-500(rpm)	10	200	I
P-42	Pedal curve selection	Pedal speed adjustment 0: normal 1: Slow acceleration 2: Quick acceleration	0/1/2	1	0	I
P-44	thread-cutting speed	thread-cutting speed	100-500(rpm)	10	100	I
P-45	Back-tracking speed limit function	Back-tracking speed processing can prevent reverse sewing needle breakage 0: 1: infinite speed limit 2: the speed limit delay with presser foot lowered	0/1/2	1	0	I
P-46	presser foot lifting delays sewing	delay with presser foot lowered	0-800(ms)	10	100	II
P-47	When running, the knee presses the foot to judge the speed	When running, the knee presses the foot to judge the speed	200-1000(rpm)	50	500	II
P-48	When running the knee is raised by the foot	When running the knee is raised by the foot	1-100	1	0	II
P-49	Press foot holding time	Lift the pressure foot after holding time to force off	1-60(s)	1	8	II
P-50	output time of total pressure of presser foot lifting	output time of total pressure of presser foot lifting	0-800(ms)	10	150	II
P-51	output duty cycle of presser foot lifting hold time of presser foot lifting	output duty cycle of presser foot lifting hold time of presser foot lifting	0-100	1	40	II
P-53	starting reinforcing-sewing speed	starting reinforcing-sewing speed	100-3000(rpm)	50	2000	I
P-54	Compensation coefficient of front tacking sewing	Compensation coefficient of front tacking sewing	80-120	1	100	I
P-55	Compensation coefficient of front back tacking sewing	Compensation coefficient of front back tacking sewing	80-120	1	100	I
P-56	ending reinforcing-sewing speed	ending reinforcing-sewing speed	100-3000(rpm)	50	2000	I
P-57	starting reinforcing-sewing of front tacking sewing	starting reinforcing-sewing of front tacking sewing	80-120	1	100	I
P-58	starting reinforcing-sewing of front back tacking sewing	starting reinforcing-sewing of front back tacking sewing	80-120	1	100	I
P-59	Continuous reinforcing-sewing speed	Continuous reinforcing-sewing speed	100-3000(rpm)	50	2000	I
P-60	Bartack stitch cancel speed limit	0: The software has speed limited 1: No speedlimited	0/1	1	0	I
P-61	A switch to cancel the angle limit when change stitch length	0: Change the stitch length within the limiting angle 1: Vhange stitch length at any angle (The stitch length may not coincide,or the needle may break)	0/1	1	0	I
P-62	Pedal travel upon start	Pedal position upon start (Travel relative to medium pedal)	10-50(0.1°)	1	15	II
P-63	Pedal travel upon acceleration	Pedal position upon start acceleration (Travel relative to medium pedal)	10-100(0.1°)	1	45	II
P-64	Pedal position at highest rotation speed	Pedal position at highest rotation speed (Travel relative to medium pedal)	10-150(0.1°)	1	100	II
P-65	Pedal travel upon presser foot lift	Pedal position upon pedal lift (Travel relative to medium pedal)	-100-10(0.1°)	1	-25	II
P-67	Pedal travel 1 upon thread trimming	Pedal position upon start trimming without presser foot function Travel relative to medium pedal	-100-10(0.1°)	1	-50	II
P-68	Pedal travel 2 upon thread trimming	Pedal position upon start thread trimming with presser foot function (Travel relative to medium pedal)	-100-10(0.1°)	1	-60	II
P-69	Down needle positioning position	To adjust down needle position	0-240	1	175	I
P-70	Sewing variable needle pitch mode	Selection of sewing needle pitch mode: 0: Normal mode 1: Starting sewing with varying needle pitch mode 2: Starting sewing at 0 point mode (enabling reverse)	0-2	1	0	I
P-71	Reversal of needle lift angle	Reversal of needle lift angle	260-360°	1	340	I
P-72	Thread clamp strength adjustment	Adjust the thread clamp strength size 0: Cl p line function is invalid 1-9: Three Intensity Adjustment	0-9	1	3	I
P-73	Thread pressing actuation angle	Thread pressing actuation angle	10-150°	5	100	I
P-74	Thread pressing release angle	Thread pressing release angle	160-300°	5	270	I
P-75	Upper stop position	Upper stop pin position adjustment	0-240	1	33	I
P-77	Setting of beauty sewing	0: unavailable 1: available	0/1	1	0	I
P-78	Beauty sewing (close sewing) mode setting	1: Close stitch on start sewing 2: Close stitch on end-sewing 3: Close stitch on both start nad end sewing	1/2/3	1	2	II
P-79	return to factory-set parameter	Special functional parameters 5/8: Restore factory parameters	0-15	1	0	I
P-80	Maximum sewing speed	The highest sewing speed	300-5000(rpm)	100	4000	II
P-81	Pedal speed percentage	Pedal speed percentage	50-100	1	100	II
P-82	Trial period	Trial function 0: Invalid trial function 10-1000: Power on trial time	0-1000(hour)	10	0	III
P-83	Strength function	Try if the needle can't penetrate the cloth. 0: invalid; 1-15: intensity adjustment	0-15	1	0	II
P-84	Function of cutting line and adding force	Effective when the cutting wire is an electromagnet; 0: invalid; 1-15: intensity adjustment	0-15	1	0	II
P-85	Thread cutting and suction angle	Setting the angle of thread cutting and suction	150-200	2	174	III
P-86	Cutting and applying force angle	Setting the angle of thread cutting and force application	200-300	2	260	III
P-87	Thread cutting release angle	Setting the angle of thread trimming release	300-360	2	340	III
P-88	Loose line suction Angle	Loose line suction Angle	0-360	2	180	II
P-89	Loose line release Angle	Loose line release Angle	0-360	2	350	II
P-90	Language selection setting	Setting of language: 0: turn off 1: Chinese 2: English	0-2	1	1	II
P-91	Change pitch selection	Change				