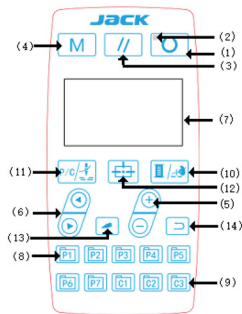




点阵屏
使用说明书
Lattice Screen
Machine Operating Manual

1900G套结一体机
for 1900G All-in-one Tacking

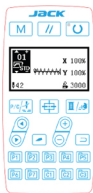
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序号	名称	功能	序号	名称	功能
1	准备键	控制面板的设定编程状态和缝纫机实际动作的缝制状态的变换键。	9	C花样设置键	设置C花样并将其存储，存储后的C花样通过按此键就可立即进行缝制。
2	缝制LED	设定编程状态时为灭灯，缝制状态时为亮灯，通过准备键来切换。	10	压脚卷线键	提升、下降压脚。上升时，把针杆移动到原点。下降时，把针杆移动到右侧。在缝制时按。
3	复位键	解除异常、将设定值返回到初期值时使用。	11	PC花样切换/单步缝制	在LED灯灭的状态下，进入PC花样登记列表。在LED灯亮的状态下，单步缝制状态。
4	模式键	显示模式画面。	12	压脚找原点键	在LED灯灭的状态下，压脚放下，XY步进找原点。
5	数据变更键	变更图案No.、各种数据。1针1针地前进传送。	13	编辑键	显示编辑画面，选择项目，或者显示详细画面。
6	项目选择键	选择数据No.等。	14	返回键	返回到前一个画面。
7	液晶选择部分	显示图案，形状等各种数据。	15	系统复位按键	显示复位列表画面
8	P花样设置键	设置P花样并将其存储，存储后的P花样通过按此键就可立即进行缝制。			

一、缝纫机的基本操作

1-1. 图案No. 的设定



打开电源开关。

在画面的左上方图案No. 被显示，图案形状、XY 放大缩小率、线张力值、缝制速度也被显示出来。


按了数据变更键  之后，可以变更图案No.。



图案号码，请参考附录一览表。

1-2. 项目数据的设定



按了编辑键  之后，项目数据输入画面被显示出来。

在画面的侧显示出可以编辑的项目，在画面右侧显示出设定内容。

用项目选择键  选择项目，然后用数据变更键  变更设定内容。

(1) X尺寸的输入

请按项目选择键，显示出CO01X尺寸。请按数据变更键，显示出希望的数值。


X·Y的尺寸输入从实际尺寸值进行选择。(初期值：%输入)



设定超过100%的话，机针和布压脚会相碰，发生断针，非常危险。

(2) Y尺寸的输入



请按项目  选择，显示出CO02Y尺寸。

请按数据变更  ，显示出希望的数值。

X·Y的尺寸输入，用存储器开关U064输入或者从实际尺寸值进行选择。

(初期值：%输入)



设定超过100%的话，机针和布压脚会相碰，发生断针，非常危险。

一、缝纫机的基本操作

(3) 缝制速度的输入




请按项目选择键  ，显示出CO03缝制速度。

请按数据变更键  ，显示出希望的数值。


输入的最大范围是存储器开关U001 最高缝制速度的数值。

(6) 设定完了

按准备键  。压脚移动→上升后准备好了LED亮灯，成为可以缝制的状态。




压脚上升时，压脚首先下降然后再移动，因此请注意不要夹到手指。


*按准备键  之后，图案No.、XY扩大缩小率等设定值被记忆。

*按了准备键  之后，准备好了LED灭灯。可以变更各项的设定。

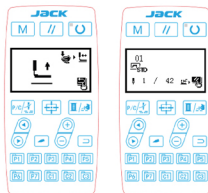
*线张力在准备好了LED亮灯时也可以变更。线张力用开始开关也可以记忆。

*请确认了图案No.之后再使用。显示着图案No.的状态下按了  键之后，会显示E010异常错误。此时，请重新设定图案No.



不按准备键  开关，关掉电源后，图案No.、XY扩大缩小率、最高转速、线张力的设定值均不能被记忆

1-3. 图案形状的确认



1) 按准备键  ，让准备好了LED亮灯。

2) 按压脚卷线键  ，显示出「压脚下降画面」。

3) 踩踏板显示出形状确认画面。

4) 请用数据变更键  确认形状。

一、缝纫机的基本操作








1-4. 向其他图案的变更













1-5. 卷绕底线



- 用复位键 ，返回到缝制开始位置，压脚上升。
 - 按了返回键  之后，在现在的位置的状态下显示缝制画面。
- 在此状态下，踩踏了踏板之后，可以从现在的位置进行缝制。

- 按准备键 ，让准备完了LED灭灯。
 - 用数据变更键  设定图案No.
- 与1-2同样，可以设定XY放大缩小率、速度等。
- 按了准备键  之后，准备完了LED亮灯变成可以缝制的状态。

- 按准备键  让准备完了LED灭灯。
- 按压脚卷线键 ，选择下降压脚。当在按压脚卷线键  之前需要确定压脚处于抬起状态，当不在抬起状态时，需要重新按准备键 。
- 按  键。显示卷线画面。
- 踩踏踏板之后，缝纫机转动。
- 再次踩踏板或者按了复位键  之后缝纫机停止。
- 按了准备键 、返回键  后结束卷线画面。

 刚刚打开〔ON〕电源后，卷线不动作。定1次图案No.等， 键让准备完LED亮灯之后再进行操作。

二、面板应用

2-1. 使用图案键 进行缝制









可以把已经登记的图案〔No.1~200〕登记到P1~P50上。变更扩大缩小率、最高转速限制、线张力、缝制位置就可以登记，用图案No.的滚动窗口选择同样可以登记图案，可以一次地叫出P1~P25。

* 选择了P8~P25时，用下表所示的键的组合（同时按）进行缝制。

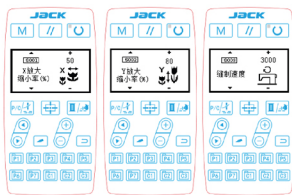
P.No.	选择键	P.No.	选择键	P.No.	选择键	P.No.	选择键
P1	P1	P8	P1+P4	P15	P4+P5	P22	P2+P3+P4
P2	P2	P9	P1+P5	P16	P1+P2+P3	P23	P2+P3+P5
P3	P3	P10	P2+P3	P17	P1+P2+P4	P24	P2+P4+P5
P4	P4	P11	P2+P4	P18	P1+P2+P5	P25	P3+P4+P5
P5	P5	P12	P2+P5	P19	P1+P3+P4		
P6	P6	P13	P3+P4	P20	P1+P3+P5		
P7	P7	P14	P3+P5	P21	P1+P4+P5		

(1) 往图案键上的登记

设定例：把图案No.3、X扩大缩小50%、Y扩大缩小60%、最高速度限制3,000RPM、线张力50，图案位置右移0.5mm、前移0.5mm的设置登记到P1。

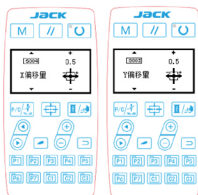
- 打开〔ON〕电源，然后按模式键 。
- （准备完了LED应该灭灯）进入方式设定（存储器开关设定）。
- 按项目选择键 ，把〔04选择直接图案〕设定为选择状态。
- 按编辑键 ，显示图案登记模式。
- 按项目选择键 ，把标准图案设定为No.1。按数据变更键 ，把P-No.设定为1。
- 按了编辑键  之后，P1被登记，模式画面被显示出来。
- 按模式键  或者按返回键 。
- ※在数据输入画面上，当标准图案或者用户图案被选择，1秒钟长时间按了选择键之后，本画面可以显示出来。





3) 请用数据变更键  进行项目数据的编辑。

有关可以编辑的项目数据，如「(2) 项目数据一览表」p.28所示。



4) 分别进行设定，把 X 尺寸缩小率设定为「50」%，把 Y 尺寸缩小率设定为「80」%，把缝制速度设定为「3000」RPM，把线张力设定为「50」。

5) 「X 放大缩小率」显示为 0.0。可以用 0.1mm 单位来设定 X 方向的移动量。

用数据变更键  把数据变更为「0.5」。

6) Y 放大缩小率」显示为 0.0。可以用 0.1mm 单位来设定 Y 方向的移动量。

用数据变更键  把数据变更为「- 1.0」。



7) 按准备键  之后，设定结束。

8) 按返回键  。结束图案登记方式（不保存当前设定的 P 花样）。


(2) 项目数据一览表

数据号码	项目名称	图标	输入范围	备注
S001	图案种类		标准图案 / 用户图案	
S002	图案 No.		标准图案：1 ~ 100 用户图案：1 ~ 200	
S003	X 放大缩小率 / 实际尺寸		% 输入时：20 ~ 200% 实际尺寸输入时：对应%的实际尺寸的范围内	用存储器开关 U064 的设定可以选择输入方法 (%、实际尺寸)。 (初期值：% 输入)
S004	Y 放大缩小率 / 实际尺寸		% 输入时：20 ~ 200% 实际尺寸输入时：对应%的实际尺寸的范围内	用存储器开关 U064 的设定可以选择输入方法 (%、实际尺寸)。 (初期值：% 输入)
S005	缝制速度		400 ~ 3200	最大输入范围按照存储器开关 U001 最高缝制速度的设定值。
S006	X 移动量		- 20 ~ 20	
S007	Y 移动量		- 20 ~ 10	

(3) 缝制操作

1) 打开电源。

2) 按直接图案。


3) 按准备键  ，准备好了 LED 亮灯之后，压脚移动后上升。

4) 确认图案形状。(请参照「1.5-4. 图案形状的确证」p.20 之项。)

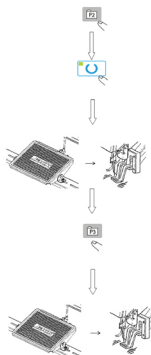
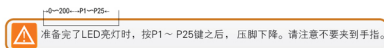
5) 如果图案形状正确，则可以缝制。

6) 缝制结束后，按了直接图案之后，压脚下降，检索原点，移动到始缝点，然后压脚上升。

7) 进行 4) 5) 项操作。

*P1 ~ P25 也可以选择指定图案。请用数据变更键  让其显示。

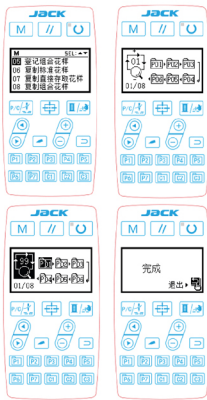
没有登记的 P1 ~ P25 则不显示。



2-2.使用组合功能（循环缝制）的缝制

本缝纫机可以顺次地缝制复数的循环缝制图案数据。最多可以输入99个团，缝制具有多个不同的图案的缝制物时可以使用。另外，最多还可以登记99个数据。需要时，请拷贝之后使用。
→请参照「1.6-6.复制和删除各种图案时」p.38的内容。

(1) 循环数据的选择



1) 打开（ON）电源，然后按模式键 **M**。

（准备完了LED应该灭灯）进入方式设定（存储器开关设定）。

按项目选择键 **01**，把「05登记组合花样」设定为选择状态。

按编辑键 **▶**，显示图案登记模式。

2) 按数据变更键 **+**，把C-No.设定为01。

按了编辑键 **▶**之后，01被登记，模式画面被显示出来。

按项目选择键 **01**来选择下一步缝制的P花样编号，按数据变更键 **+**，来选择P花样No.。

按了复位键 **//**之后，可以删除登记的所有图案数据

按准备键 **U**之后，设定结束。

按返回键 **◀**。结束图案登记方式（不保存当前设定的P花样）。

3) 进行缝制

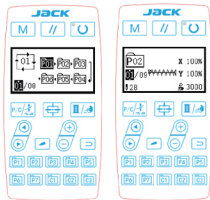
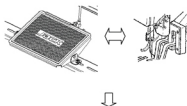
在连续缝制数据被选择的状态下，按了准备键 **U**之后，

准备完了LED亮灯，变成可以缝制。

购买时仅登记了循环数据No.1，没有输入缝制图案，不能成为缝制状态。



(2) 缝制操作



- 1) 打开电源。
- 2) 用项目选择键 **01** 选择循环图案，然后用数据变更键 **+** 选择循环图案No.
- 3) 按准备按键 **U**，准备完了LED亮灯之后，压脚移动，然后上升。
- 4) 如果图案形状良好，就可以进行缝制。
- 5) 每次缝制时，组合的顺序也按照步骤缝制，1循环结束后，返回到最初的步骤，可以反复缝制。

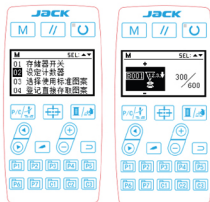
※缝制时，想要返回到前一个图案，或者跳到下一个图案时，请在准备完了LED亮灯的状态下，按数据变更键 **+**。图案显示变化，压脚向起始点移动。

※请注意，登记了C1 ~ C99后，如果变更了P1 ~ P50的内容，在C1 ~ C99中使用的P1 ~ P50的内容也全部变更了。

※请确认各个图案中的每个图案形状。（请参照「1.5-4.图案形状的确认」p.20）
※在缝制画面上，按了项目选择键 **01**之后，可以显示缝制的图案的详细内容。

2-3.使用计数器的缝制

(1) 计数器的设定方法



- 1) 叫出计数器设定画面
在准备完了LED灭灯的输入模式，按模式键，显示出模式画面。用项目选择键，把「02计数器设定」设定为选择状态按编辑键，显示计数器画面。计数器画面A被显示，成为可以设定。计数器值的设定只能用输入模式进行设定。如果是缝制模式时，请按准备键 **U**，设定为输入模式。

- 2) 计数器类别的选择按项目选择键 **01**，反转表示计数器类别。按数据变更键 **+**，从下列计数器类别中选择适当的计数器。
- 3) 计数器设定值的变更按项目选择键 **01**，反转计数器设定值。按数据变更键 **+**，输入设定值。

- 4) 计数器现在值的变更
按项目选择键 **01**，反转计数器现在值。按复位键 **//**之后，可以清除计数器途中的值。另外，用数据变更键 **+**也可以进行数值编辑。

(2) 计数器类别

① 缝制加数计数器 $\sqrt{2.3}$ ↑

每进行1形状的缝制之后，现在值数字加1。现在值和设定计数器。

② 底线减数计数器 $\sqrt{2.3}$ ↓

每缝制10针，在现在值的基础上进行减算。现在值等于0之后，显示计数器加数画面。

③ 不使用计数器 $\sqrt{2.3}$

(3) 计数器加数的解除方法

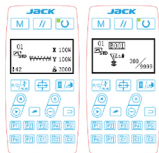


缝制作业中如果到达加数条件之后，则显示出加数画面。

按复位键 $//$ 之后，复位计数器返回缝制模式。

而且，从新记数。

(4) 在准备状态下的计数器的确认方法



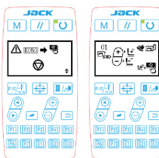
1) 在准备完了 LED 亮灯的缝制模式，按了项目选择键 \odot 之后，

计数器画面被显示出来。

2) 在计数器画面上，用数据变更键 \odot 可以更新计数器的现在值。

另外，用复位键 $//$ 可以清除现在值。

2-4. 暂停的使用方法



用存储器开关U03把复位键设定为暂停之后，复位键变成暂停键，缝制中可以用来停止缝纫机。
(请参照「1.8-2.存储器开关功能一览表」p.52。)

1) 用复位键 $//$ 让缝纫机停止，E050被显示出来。按了复位键 $//$ 之后，解除异常，前进后退送布画面被显示出来。

2) 解除后的操作有以下3种。

1. 用开始开关重新开始缝制。
2. 按复位键 $//$ ，进行切线后，用数据变更键调整位置，然后再用开始开关开始缝制。

3. 按复位键 $//$ ，进行切线后，再次按复位键 $//$ 复归原点。

2-5. 复制各种图案时

可以把已登记的模式NO.的数据复制到没有使用的NO.

可以复制图案有以下3种情况。

- 把标准图案、用户图案复制到用户图案
- 复制图案键
- 复制循环图案

1) 设定为输入模式

在准备完了LED灭灯的输入模式下，可以进行复制。

缝制模式时，请按准备键 \odot 变换为输入模式。

2) 显示模式画面

按模式键 M ，显示出模式画面。用项目选择键 \odot

把复制图案设定为选择状态，请按编辑键 \rightarrow 。

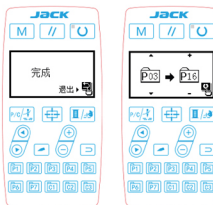
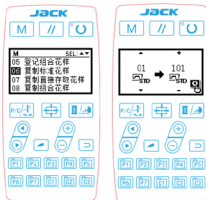
3) 叫出复制画面

按项目选择键 \odot ，选择复制原图案的模式No.

可以选择的图案种类有标准图案、用户图案。仅登记的模式No.被显示出来。

按了返回键 \leftarrow 之后，取消复制功能，返回到模式画面。

4) 选择复制位置的图案No. 按数据变更键 \odot ，选择想复制的模式No.



5) 开始复制

按准备键 \odot 之后，开始复制，在复制步骤编制的图案No.被选择的状态下。

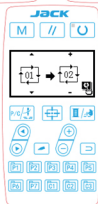
返回到输入画面。

※复制直接图案时，在模式画面上请选择「直接图案复制」，

复制循环图案时，在模式画面上选择「循环图案复制」。

也可以用同样的方法进行复制。

※直接存取图案、循环图案也可以用同样的方法进行复制。



2-6. 关于通信 (1)关于USB

① 有关使用 USB 的注意事项

- 缝制时，请不要在USB插口上连接着USB机器、USB线进行运转。振动有时会造成连接器损坏，也有可能会丢失USB的数据或发生USB机器、缝纫机的故障。
- 读取写入程序或缝制数据时，请不要插拔USB插头。有发生数据损坏或机器误动作的危险。
- 在USB机器的保存领域里划分分区后，可以仅与一个分区通讯。
- 有的USB机器可能本机不能正确地识别。
- 使用本机时，如果USB机器内的数据消失，本公司一律不予赔偿损失。
- 通讯画面，图案数据一览被显示上，插上媒体也不能识别驱动器。
- USB、CompactFlash(TM)等的媒体原则上仅可以连接1台。如果连接了数台机器，只能识别1台。有关详细内容，查阅USB的规格。
- 请把USB连接器确实地深深插进IP操作盘的USB端子的里面。
- 在与USB上的数据进行存取的中途，请不要关闭(OFF)电源。

② USB的规格

- 对应USB 1.1规格
- 对应机器※1——USB存储器、USB集线器、FDD、读卡器的等记忆装置
- 不对应机器——CD、DVD、MO、磁带驱动器
- 对应格式——FD(软盘)FAT12
- 其他(USB存储器等)FAT12·FAT16·FAT32
- 对应媒体尺寸——FD(软盘)1.44MB·720kB
- 其他(USB存储器等)4.1MB~(2TB)
- 驱动器的识别-----与USB机器等外部媒体通讯时，仅和最初识别的媒体通讯。但是向内置媒体插口插入了媒体时，向该媒体的通讯为最优先。
(例：插入了USB存储器后，如果向媒体插口插入媒体则仅向媒体插口通讯。)
- 连接的限制-----最多10装置
- 连接了超过最大限数时，超过限数的记忆媒体取下，不重新连接的话，就不能识别。)
- 消费电流-----可以连接的USB机器的额定消费电流为最大500mA。

※1 不能保证所有的对应机器的动作。由于不匹配等问题，有的机器不能动作。

(2) 使用通信功能时



本缝纫机可以使用USB存储器进行数据的输入输出。

1) 设定为通信模式：按模式键 **M**，显示出模式画面。

用项目选择键 **0** 把通信为选择状态，请按编辑键 **1**。

2) 选择通信种类：按变更数据键 **2**，选择通信种类。

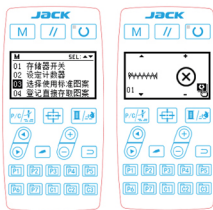
3) 选择通信方向：按选择项目键 **3**，显示出表示选择通信方向的图标。

按变更数据键，选择通信方向。

1：把主控的数据写入USB。

2：把USB的数据输入主控。

2-7. 标准图案是否可以呼出的设定



不能呼出不需要的图案，可以防止错误地呼出不需要的图案。

另外，可以呼出需要的图案。

设定例：图案No.2设定为不可以呼出。

1) 设定为输入模式，准备完了LED灭灯的输入模式时，可以进行设定。

如果是缝制模式时，请按准备键 **U** 变换到输入模式。

2) 按模式键 **M**，显示出模式画面。用项目选择键 **0**，把使用标准图案设定为选择状态，然后请按选择键 **1**。

3) 按项目选择键 **3**，显示出图案No.2。

4) 按数据变更键 **2**，选择使用、不使用图案。

1：使用

2：不使用

2-8. 存储器开关的启动和变更



1) 设定输入模式

在准备完了LED灭灯的输入模式下，可以变更存储器开关数据。

缝制模式时，请按准备键 **U** 变换为输入模式。

2) 叫出存储器开关数据编辑画面

按了模式键 **M** 之后，模式画面（操作人员等级）被显示出来。

在此画面，选择存储器开关数据（等级1）。

3) 选择变更的存储器开关数据

按项目选择键 **3**，选择想变更的数据项目。



4) 变更数据

存储器开关数据中，有变更数值的数据项目和选择的数据项目。

变更数值的项目标有那样的NO.，用变更数据键 **2**，可以增减变更设定值。

→ 存储器开关数据的详细内容，请参照「1.2-9. 存储器开关功能一览表」p.52。

2-9. 存储器开关功能一览表

使用存储器开关，可以用程序设定缝纫机的各种动作。
出货时的初期值根据集成的需要设定了各种项目。

(1) 存储器设置一参数列表

参数号	功能	调整范围	初值	备注
1	缝制的最高速度。 (可以以100rpm为单位设定)	400~3200	2500	
8	切线时的线张力	0~200	0	
9	切线时的线张力变换同步时间	-20~7	0	
10	第1针的缝制速度。 (可以以100rpm为单位设定)	400~1500	400	
11	第2针的缝制速度。 (可以以100rpm为单位设定)	400~3000	600	
12	第3针的缝制速度。 (可以以100rpm为单位设定)	400~3200	900	
13	第4针的缝制速度。 (可以以100rpm为单位设定)	400~3200	3200	
14	第5针的缝制速度。 (可以以100rpm为单位设定)	400~3200	3200	
15	缝制开始的线张力	0~200	70	
16	缝制开始的线张力变换同步时间。	-22~30	0	
17	XY扩大缩小率，最高转速限制 的显示，以及变更可否。	0: 可变更 1: 不可变更	0	
31	可以用操作键盘(清除键) 停止缝纫机动作	0: 无效 1: 操作盘复位键 2: 踏板倒踩和急停按钮	2	
36	选择送布动作的同步时间 紧线不好时设定为-方向	-8~16	0	向-侧移动过多的话，有断针 的危险。缝制厚料时请加以注意
37	缝制结束XY回原点抬压脚顺序	0: 先回起缝点再抬压脚 1: 回起缝点同时抬压脚 2: 回起缝点后手动抬压脚	1	
39	可以设定每次缝制结束后 均检索原点(除循环缝制以外)	0: 不检索原点 1: 检索原点	0	
40	可以设定循环缝制时的原点检索	0: 不检索原点 1: 每1图案结束	0	

42	设定针杆停止位置	0: 上位置 1: 上死点	0	上死点停止时为上位置， 停车后反转停止
46	可以禁止切线	0: 通常 1: 禁止切线	0	
49	可以设定卷线速度	800~2000	1600	

(2) 存储器设置二参数列表

参数号	功能	调整范围	初值	备注
20	标准踏板、踏脚急停位置	10~80	30	
21	标准踏板、踏脚开关位置	150~280	240	增加设定值的话， 踏板的踩踏量会增加
22	标准踏板、高低段行程开关位置	300~380	330	增加设定值的话， 踏板的踩踏量会增加
23	标准踏板、启动开关位置	400~480	430	增加设定值的话， 踏板的踩踏量会增加
24	单双踏板切换	0: 单踏板; 1: 双踏板	0	
27	踩踏板时压脚下降速度	100~4000pps	4000	
28	踩踏板时压脚上升速度	100~4000pps	2800	设定上升过度的话 会引起操作不良
29	缝制结束时切线压脚上升速度	100~4000pps	4000	设定上升过度的话 会引起操作不良
38	缝制结束自动抬压脚	0: 自动抬压脚, 1: 踩踏板到1档抬压脚	0	
44	切线时在易于切线的方向选择 有无送布的操作	0: 无送布 1: 有送布	0	
45	切线时进行送布的针孔导向直径 (可设定以0.2mm为单位)	16~40 (1.6mm~4.0mm)	16	
50	剪线角度	140~300	160	
56	+X方向(右侧)的移动限定范围	-30~30mm	20	
57	-X方向(左侧)的移动限定范围	-30~30mm	-20	在出厂状态下 不考虑压脚的形状
58	+Y方向(后面)的移动限定范围	-30~30mm	15	在出厂状态下 不考虑压脚的形状

参数号	功能	调整范围	初值	备注
59	-Y方向（前面）的移动限定范围	-30~30mm	-15	在出厂状态下 不考虑压脚的形状
68	主轴停车补偿	-100~+100	33	
120	加润滑油报警计数	3000~12000	8000	单位：万针
135	起缝前压脚动作顺序	0: 表示XY找原点后压脚先自动空送到起缝点再降下压布； 1: 表示XY找原点后压脚停留在原点位置脚踏踏板到一档在原点降下压布脚踏踏板到二档压脚先自动移动到起缝点再开始缝制； 2: 的动作在起缝时与1相同，只是当缝制结束时，压脚停留在结束点，脚踏踏板到1档时回到原点并抬压脚	0	参数值为2的情况 仅在#38=1时生效
138	线张力控制方式	0: 类电子线方式； 1: 支线方式	1	
150	机头翻起安全开关可以无效	0: 普通 1: 机头翻起安全形状无效	0	
390	中压脚原点偏移	-200 ~ 200	0	
391	中压脚台压动作偏移量	-300 ~ 0	-110	
392	中压脚抬压速度	100 ~ 4000	3600	
393	中压脚摆动幅值	0 ~ 4000	1820	
394	中压脚相位摆动偏差	0 ~ 359	320	

注：以上参数只供维修人员使用，用户不能轻易改动。


2-10. 系统复位操作



1) 设定输入模式

在准备完了 LED 灭灯的输入模式下，按下面板侧面按键，进入复位界面。

2) 进入参数数据复位显示界面

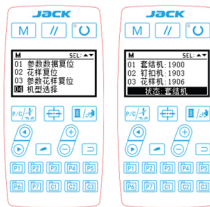
按项目选择键 ，选择「01 参数数据复位」。

按了剪辑键  之后，变成参数数据复位画面。

若按了准备键 ，则需在LOADING...界面之后需要重启。

※ 花样复位与参数花样复位的操作与参数数据复位操作一致

2-11. 机型选择



1) 设定输入模式

在准备完了 LED 灭灯的输入模式下，

按下面板侧面按键，进入复位界面。

2) 进入机型选择显示界面

按项目选择键 ，选择「04 机型选择」。

按了剪辑键  之后，变成机型选择画面。

3) 机型变更

请按准备键  转换为机型更改模式。

若按了准备键 ，则需在LOADING...界面之后需要重启。

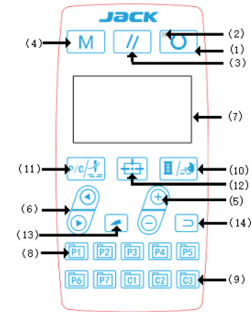
三、套结机故障代码















故障代码	故障名称	故障原因
E10	图案NO异常	被准备的图案NO没有登记到ROM里,或是被设定为不能读出。图案NO.为0。
E30	停止针位异常	针杆不在上位置。
E31	找上针位异常	针杆找不到上位置。
E40	超过缝制区	XY超过缝制区域。
E43	放大异常	针迹不大于24mm。
E44	针数超限	2000针。
E45	图案数据异常	不能对应的图案数据。
E46	参数数据异常	不能对应的参数数据
E50	暂停	缝制机运转中按下复位开关,暂停。
E221	补充润滑油报警异常	机器运转到了向指定位置补充润滑油的时期,所以缝制机停止了。
E302	机头翻到异常	机头翻倒检测开关被设定为ON。
E303	90V电源异常	90V电压过低。
E306	切刀位置异常	切线刀不在正确位置。
E401	闭环位置	暂无
E402	反转堵转	暂无
E403	正转堵转	暂无
E404	过温	暂无
E406	X步进过流	X步进硬件过电流。检查电机、MOSFET驱动板。
E406	Y步进过流	Y步进硬件过电流。检查电机、MOSFET驱动板。
E407	STEP1绕组开路	暂无
E408	STEP1编码器故障	暂无
E410	步进90V欠压	暂无
E411	X同步异常	暂无
E412	Y同步异常	暂无
E413	X轴数异常	完成一次缝制后主控检测到步进板在X方向接收的命令与主控发送的命令步数不符。暂无
E414	Y轴数异常	完成一次缝制后主控检测到步进板在Y方向接收的命令与主控发送的命令步数不符。暂无
E415	STEP2绕组开路	暂无
E416	STEP2编码器故障	暂无
E417	STEP1位置偏差异常	X轴位置误差过大。检查X轴编码器,或者检查负载是否过重、卡住。
E418	STEP2位置偏差异常	Y轴位置误差过大。检查Y轴编码器,或者检查负载是否过重、卡住。
E419	电流传感器1故障	X轴电流传感器中点值异常。检查电流反馈电路。
E420	电流传感器2故障	Y轴电流传感器中点值异常。检查电流反馈电路。
E436	压脚过流	压脚步进电流检测异常。
E436	压脚过流	压脚步进电流检测异常。
E447	压脚步进故障	压脚步进电流检测异常。
E448	中压脚、拆线步进故障	步进或者编码器故障。
E733	主轴过流	马达发热、停转。改电机K值、低速、停车K值。更换驱动模块。
E739	主轴电机过数	主轴电机负载过大,功率超过电机承受范围。
E740	主电机转速异常	主轴电机超速。
E741	主电机反转异常	主轴电机发生反转。
E811	停机时过压	供电电压过高。
E812	运行时过压	供电电压过高。

三、套结机故障代码

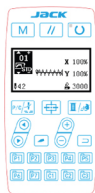
故障代码	故障名称	故障原因
E813	系统欠压	供电电压过低。
E814	电磁铁回路故障	电磁铁短路。
E815	电流检测回路故障	电机电流检测异常。
E816	主轴电机堵转	主轴电机堵转。
E817	主轴电机停针传感器故障	主轴电机结束停针时检测不到停针信号。
E818	主轴电机初始角度测量异常	主轴电机初始角度测量异常。
E819	HALL故障	主电机HALL故障。
E899	面板断言	面板出错,重启。
E906	N05原点检查异常	第5路原点传感器不变化。
E907	X原点检查异常	X原点传感器不变化。
E908	Y原点检查异常	Y原点传感器不变化。
E910	压脚原点检查异常	压脚原点传感器不变化。
E911	X向步进电机故障	X电机在动作中主控再次发送动作命令。
E912	Y向步进电机故障	Y电机在动作中主控再次发送动作命令。
E913	拆线原点传感器故障	压脚原点在动作中主控再次发送动作命令。
E915	主电路板-操作面板通信故障	主电路板与操作面板不能通信或通讯错误。
E916	主电路板-步进XY电路板通信故障	主电路板与XY步进电路板不能通信或通讯错误。
E917	主电路板-步进压脚电路板通信故障	主电路板与压脚步进电路板不能通信或通讯错误。
E918	压脚步进电机故障	压脚电机在动作中主控再次发送动作命令。
E919	4路步进动作响应失败	电机在动作中主控再次发送动作命令。
E920	5路步进动作响应失败	电机在动作中主控再次发送动作命令。
E921	X步进接受指令异常	步进X轴数异常【主控中暂时未用(V23版)】
E922	Y步进接受指令异常	步进Y轴数异常【主控中暂时未用(V23版)】
E923	中压脚异常/拆线异常	检查传感器、电机。
E947	主电路板-主电路板通信故障	主电路板与主电路板不能通信或通讯错误。
E950	N05步进握手故障	第5路步进通讯问题。
E961	软件版本不符合	主控、软件库、主轴软件不匹配。
E999	伺服软件异常	主轴软件不对。
E999	主控软件异常	主控软件不对。

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No	Name	Function	No	Name	Function
1	Standby key 	It is the switch key of the set programming status of the control panel and the sewing status of the actual operation of the sewing machine.	9	C pattern setting key 	Set the C pattern and store it. The stored C pattern can be immediately sewed by pressing this button.
2	Sewing LED 	The light is off when setting the programming state and it is at sewing state. It is switched through the standby key.	10	Presser foot winding key 	It is used to raise and lower the presser foot. When raising, move the needle bar to the origin point; when lowering, move the needle bar to the right side. Press when winding.
3	Reset key 	It is used to release the exception and reset the set value to the initial value.	11	PC pattern switching/ single step sewing 	Under the LED light off state, enter the PC pattern registration list, under the LED light on state, the single-step sewing state is activated.
4	Mode key 	Display mode screen.	12	Find original key with presser foot 	Under the LED light off state, release the presser foot, and find the origin point via XY stepping.
5	Data change key 	Change pattern number and various data. Transmit forward needle by needle.	13	Edit key 	It is used to display the editing screen, select the item, or display the detailed screen.
6	Item selection key 	It is used to select the data number, etc.	14	Return key 	Return to the previous screen.
7	LCD Selection Part	It is used to display various data such as patterns, shapes and so on	15	Reset key 	It is used to display the reset list screen
8	P pattern setting key 	Set the P pattern and store it. The stored P pattern can be immediately sewed by pressing this button.			

1-1.Setting of Pattern No.



Turn on power switch.

The pattern No. on the upper left of the screen is displayed, and the pattern shape, XY magnification and reduction rate, the line tension value and the sewing speed are also displayed.


After pressing the data change key , the pattern No. can be changed.



Please refer to the Appendix List for the pattern No



1-2.Setting of Project Data



When the edit key  is pressed, the item data input screen is displayed.

The editable items are displayed on the left side of the screen,

and the set items are displayed on the right side of the screen.

Use the item selection key  to select the items, and then use the data change key  to change the setting.

(1) Input of X Size

Press the item selection key  to display the C001X Size. Press the data change key  to display the desired value.

The size input of X · Y is selected from the actual size value. (Initial value: % input)



If setting more than 100%, the needle and cloth presser foot will be collided to cause needle breakage, which is very dangerous.

(2) Input of Y Size



Please press the item  to select to display the C002Y Size.

Press the data change key  to display the desired value.

The size of X · Y is input from the memory switch U064 or selected from the actual size value. (Initial value: % input)



If setting more than 100%, the needle and cloth presser foot will be collided to cause needle breakage, which is very dangerous.

(3) Input of Sewing Speed




Press the item selection key  to display the C003 sewing speed.

Press the data change key  to display the desired value.

The maximum input range is the value of the maximum sewing speed of the memory switch U001.

(6) Completion of Settings



Press the Standby key . Move the presser foot →Raise to get LED light up, and enter sewing standby state.




When the presser foot is rising, it is first lowering and then moving. NOTE: Be cautious of finger pinching.


*After pressing the Standby key , the setting value such as pattern No. and XY magnification and reduction ratio will be memorized.

*After pressing the Standby key  to get LED light off so as to change the settings for each item.

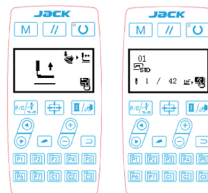
*The thread tension can also be changed when the LED light is ready. The thread tension can also be memorized with the start switch.

* Please use after confirming the pattern No. When the Standby key  is pressed while the pattern No. is displayed, the E010 error will be displayed. In this case, please reset the pattern No.



If the Standby key  switch is not pressed, after the power is switched off, the set value for the pattern No., XY magnification and reduction ratio, maximum rotation speed and the thread tension cannot be memorized.

1-3.Confirmation of Pattern Shape



1) Press the Standby key  to get the LED light up.

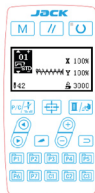
2) Press the presser foot winding key  to display the "presser foot down screen".

3) The pedal shows the shape confirmation screen.

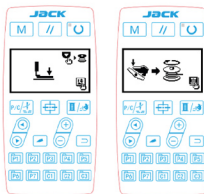
4) Use data change key  to confirm shape.



1-4. Change to Other Patterns



1-5. Winding Base Line



5) Use the reset key to return to the sewing start position and get the presser foot to rise. When the return key is pressed, the sewing screen is displayed in the current position. In this state, after the pedal is stepped, the sewing can be performed from the current position.

Press the Standby key to get the LED light off.

Use data change key to set pattern No.

As in 1-2, the XY magnification and reduction rate, speed and so on can be set. After the Standby key is pressed, the LED light is on to enter the sewing standby status.

- 1) Press the Standby key to get the LED light off.
- 2) Press the presser foot winding key to select to lower presser foot. Before pressing the presser foot winding key , it shall be confirmed that the presser foot is at the raised status. If it is not in the lift status, the standby key needs to be pressed again.
- 3) Press the key to display the winding screen.
- 4) After the pedal is pedaled, the sewing machine rotates.
- 5) Step down the pedal again or press the reset key to stop the sewing machine.
- 6) Press the Standby key and return key to finish the winding screen.

When it is just powered on (ON), the winding is not working. Please set pattern No. once, and press key to get LED light up before operation.

2-1. Use Pattern Key for Sewing

The registered patterns (No. 1 to 200) can be registered on the P1 to P50. The registration can be conducted by changing the magnification and reduction ratio, maximum rotation speed limitation, thread tension and sewing position.

The pattern can also be registered by using the scrolling window of pattern No., and P1 ~ P25 can be made out in one time.

* When P8 to P25 is selected, sewing is performed with the combination (press at the same time) the keys shown in the table below.

P-No.	Selectionkey	P-No.	Selectionkey	P-No.	Selectionkey	P-No.	Selectionkey
P1	P1	P8	P1+P4	P15	P4+P5	P22	P2+P3+P4
P2	P2	P9	P1+P5	P16	P1+P2+P3	P23	P2+P3+P5
P3	P3	P10	P2+P3	P17	P1+P2+P4	P24	P2+P4+P5
P4	P4	P11	P2+P4	P18	P1+P2+P5	P25	P3+P4+P5
P5	P5	P12	P2+P5	P19	P1+P3+P4		
P6	P6	P13	P3+P4	P20	P1+P3+P5		
P7	P7	P14	P3+P5	P21	P1+P4+P5		

(1) Registration on the pattern key

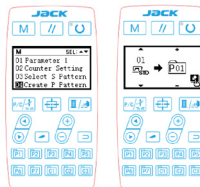
Setting example: Register the following settings of Pattern No.3 to P1: magnify and reduce X by 50%, Y by 80%, and limit the maximum speed to 3,000 RPM and thread tension 50, move the pattern position 0.5mm to the right and 0.5mm to the front.

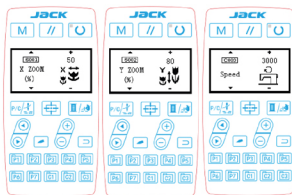
1) Turn on the power and press the mode key . (When it is standby, the LED light should be off) Enter the method settings (memory switch settings). Press the item selection keyset "04 select direct pattern" as the selected status. Press the edit key to display the pattern registration mode.

2) Press the item selection key to set the standard pattern to No.1. Press the data change key to set P-No. as 1.

When the edit key is pressed, P1 is registered and the mode screen is displayed. Press the mode key or press the return key .

※ In the screen of data input, when the standard pattern or user pattern is selected and after the selection key is long pressed for 1 second, the screen can be displayed.







3) Please use the data change key  to edit the item data.

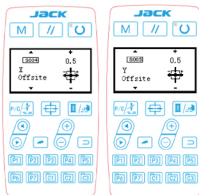
For item data that can be edited, it is as shown in“(2)List of Item Data” on p.28.

4) Perform the settings respectively. Set the X size reduction ratio to'50%',

Y size reduction ratio to'80%', the sewing speed to'3000'RPM, and set the thread tension as'50'.

5)'X Magnification and Reduction Ratio'is displayed as 0.0. The amount of movement in the Y direction can be set in units of 0.1 mm. Use the data change key  to change the data to'0.5'.

6)'Y Magnification and Reduction Ratio'is displayed as 0.0. The amount of movement in the Y direction can be set in the unit of 0.1 mm. Use the data change key  to change the data to'–1.0'.










7) Press the standby key  to finish the setting.

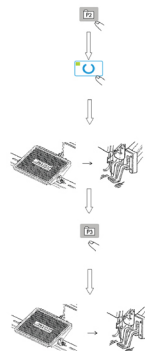
8) Press the return key  to end the pattern registration mode (do not save the currently set P pattern).




(2) List of Item Data


Data No.	Item Name	Icon	Input Range	Remarks
S001	Pattern type		Standard pattern/User pattern	
S002	Pattern No.		Standard pattern: 1~100 User pattern: 1~200	
S003	X magnification and reduction ratio / Actual size		% input: 20~200% When inputting the actual size; it shall be within the range of the actual size of the corresponding %	The use of settings of memory switch U064 can be used to select the input method (% actual size). (Initial value:% input)
S004	Y magnification and reduction ratio / Actual size		% input: 20~200% When inputting the actual size; it shall be within the range of the actual size of the corresponding %	The use of settings of memory switch U064 can be used to select the input method (% actual size). (Initial value:% input)
S005	Sewing Speed		400 ~ 3200	The maximum input range is subject to the set value of the maximum sewing speed of the memory switch U001.
S006	X movement amount		- 20~ 20	
S007	Y movement amount		- 20~ 10	

(3) Sewing Operation



Example of operation: first sew with the registered P2 content, and then sew the content of P3.

- 1) Power it on.
- 2) Press the direct pattern.
- 3) Press the standby key  to get the LED light up, so that the presser foot can rise after movement.
- 4) Confirm the pattern shape. (Please refer to'1.5-4. Confirmation of Pattern Shape' on p.20.)
- 5) If the pattern shape is correct, it can be sewed.
- 6) After sewing and pressing the direct pattern, the presser foot is lowered to retrieve the origin, and move to the initial sewing point, and then presser foot goes up.
- 7) Perform the operations of Item 4) and 5).

* The specified patterns can also be selected for P1 ~ P25. Please use the number change key  to display it. If not registered, P1 ~ P25 will not be displayed.

 After it is standby and LED light is on, press P1~P25 to lower the presser foot. NOTE: Be cautious of finger pinching!

2-2.Sewing with Combined Functions (Cycling Sewing)

The sewing machine can sequentially sew a plurality of cycle sewing pattern data. Up to 99 groups can be entered and it can be used when sewing with sewing pieces with a number of different patterns. In addition, up to 99 data can be registered. When necessary, please use after copying.

→Please refer to contents of p.38: '1.6-6. Copying and Deleting Various Patterns'.

(1) Selection of Cycle Data



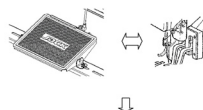
1) Turn on the power and press the mode key **M**. (When it is standby, the LED light should be off) Enter the method settings (memory switch settings). Press the item selection key **0** to "combine 05 registration into pattern" as the selected status. Press the edit key **▶** to display the pattern registration mode.

2) Press the data change key **◀** to set C-No. as 01.
When the edit key **▶** is pressed, 01 is registered and the mode screen is displayed. Press the item selection key **0** to select the P pattern number for the next step, and press the data change key **◀** to select P pattern No.
Press the reset key **//** to delete all the pattern data registered.
Press the standby key **⏻** to finish the setting.
Press the return key **⏪** to end the pattern registration mode (do not save the currently set P pattern).



3) Sewing
In the state where the continuous sewing data is selected, press the standby key **⏻** to get LED light on and it is ready for sewing.
Only the cycle data No. 1 is registered at the time of purchase, and no sewing pattern is input, which cannot become the sewing state.

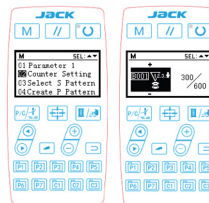
(2) Sewing Operation



- 1) Power it on.
 - 2) Use the item selection key **0** to select the cycle pattern, and then use the data change key **◀** to select the cycle pattern No.
 - 3) Press the standby key **⏻** to get the LED light up, so that the presser foot can rise after movement.
 - 4) If the pattern is well shaped, then it is ready for sewing.
 - 5) When sewing each time, the order of the combination is also sewn according to the steps. After the end of Cycle 1, return to the initial step to sew repeatedly.
- ※ After sewing, if you want to return to the previous pattern, or skip to the next pattern, press the data change key **◀** when it is standby and LED is on. The pattern shows the change, and the presser foot moves toward the initial sewing point.
- ※ Please note that after C1 - C99 is registered, if the contents of P1 - P50 have been changed, then the contents of P1 - P50 used in C1 - C99 would have all been changed.
- ※ Confirm each pattern shape in various patterns.
(Please refer to '1.5-4. Confirmation of Pattern Shapes' on p.20.)
- ※ On the sewing screen, after pressing the item selection key **0**, the details of the sewing pattern can be displayed.

2-3.Sewing with Use of Counter

(1) Setting Method of Counter Value




- 1) Setting screen of calling out the counter
When the LED light off input mode is ready, press the mode key to display the mode screen. Use the item selection key to set '02 Counter Setting' to the selection status. Press the Edit key to display the counter screen. The counter screen A is displayed and can be set. The setting of the counter value can only be done in the input mode. If it is sewing mode, press the standby key **⏻** to set it as input mode.
- 2) Selection of counter category
Press the item selection key **0** to reverse the counter category. Press the data change key **◀** to select the appropriate one from the following counter categories.
- 3) Change of counter setting value
Press the item selection key **0** to reverse the counter setting. Press the data change key **◀** to enter the set value.
- 4) Change of current value of the counter
Press the item selection key **0** to reverse the current value of the counter. After pressing the reset key **//**, the value in the transit process of the counter can also be cleared. In addition, the data change key **◀** can also be used for the value editing.


(2) Counter Category

Sewing addend counter 

After the sewing of Shape 1, the current value will be added 1. Current value and setting counter


② Baseline subtractor counter 

After sewing of 10 needles, the subtraction shall be conducted on the basis of the current value. After the current value equals to 0, the counter addend screen will be displayed.

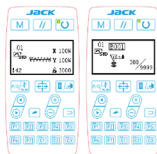
③ Not using a counter 




(3) Release method of counter addend method



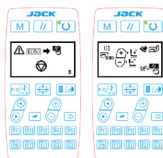
If the addend condition is reached in the sewing job, the addend screen will be displayed. When the reset key  is pressed, the reset counter returns to the sewing mode. Besides, the count will start anew.

(4) Confirmation method of counter in the standby state








- When the LED Light on sewing mode is ready and pressing the selection key , the counter screen is displayed.
- On the counter screen, use the data change key  to update the current value of the counter. In addition, use the reset key  to clear the current value.

2-4.How to Use Pause



After setting the reset key to pause with memory switch U031, the reset key is changed to the pause key, and it can be used to stop the sewing machine in the process of sewing. (Refer to 8-2. Memory Switch Function List on p.52.)

- Use the reset key  to stop the sewing machine, and the E050 is displayed. Press the reset key  to release the abnormalities, the forward and backward cloth transmission screens will be displayed.
- There are following three operations after release.
 - Start sewing again with the start switch.
 - Press the reset key  to cut the line, and then use the data change key to adjust the position, and then start the sewing with the start switch.
 - Press the reset key  to cut the line and press the reset key  again to return to the origin point.


2-5.Copy of Various Patterns

The data of the No. of registered patterns can be copied to the No. that is not used.




There are following three cases when copying the patterns.


- Copy the standard patterns/user patterns to the user patterns
- Copy pattern key
- Copy the cycle pattern

1) Set as Input Mode

After the LED off input mode is prepared, it is ready for copy. When it is in the sewing mode, press the standby key  to change to the input mode.

2) Display mode screen

Press the mode key  to display the mode screen. Press the itemselection key  to set the copy pattern to the selection mode, and press the edit key .


3) Call out copy screen Press the item selection key  to select to copy the pattern No. of the original pattern. The type of pattern that can be selected includes the standard patterns and user patterns. Only the registered pattern No. will be displayed.

After pressing the return key  to cancel the copy function and return to the mode screen.

4) Select the pattern No. to copy the position

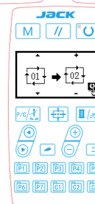
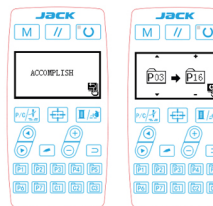
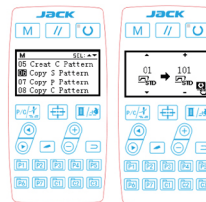
Press the Data Change key  to select the No. to be copied.

5) Start Copying

Press the standby key  to start copying, and in the status that the pattern No. prepared in the copy step is selected, return to the input screen.

※ When copying the direct pattern, select 'Direct Pattern Copy' on the mode screen and select 'Cycle Pattern Copy' on the mode screen when copying the cycle pattern. The same way can be used for copying.

※ For the direct storage patterns and cycle patterns, they can be copied in the same way.



2-6.AboutCommunication (1) About USB

① Notes on using USB

- When sewing, do not connect the USB device and USB cable on the USB port for operation. Sometimes vibration may cause damage to the connector, and may also cause USB data loss or failure of USB device and sewing machine.
- Do not insert or remove the USB plug when reading and writing program or sewing data. There are risks of causing data corruption or malfunction of the machine.
- After partitioning the area of the USB machine, only one partition can be communicated.
- Some USB machines may not be recognized by the machine properly.
- When using this device, the company will not compensate for any data lost in the USB device.
- Once the communication screen and pattern data list are displayed, the drive cannot be recognized by plugging in the media.
- In principle, media such as USB, CompactFlash (TM), etc. can only be used to connect 1 unit. If multiple machines are connected, only 1 unit can be identified. For details, please check the USB specifications.
- Do deeply and firmly insert the USB connector into the USB terminal of the IP operating panel.
- Do not turn off the power supply while accessing the data on the USB.

② USB Specifications

- Corresponding USB 1.1 specifications
- Corresponding machine \times 1 _____ memory devices such as USB memory, USB hub, FDD, card reader and so on
- Non-corresponding machine _____ CD, DVD, MO, tape drive and so on
- Corresponding format _____ FD (floppy disk) FAT12
_____ Other (USB memory, etc.) FAT12+ FAT16+ FAT32
- Corresponding media size _____ FD (floppy disk) 1.44MB~720kB
_____ Other (USB memory, etc.) 4.1MB ~ 2TB)
- Identification of drive _____ When communicating with an external media such as a USB device, it communicates only with the media that is initially identified. But when the media is inserted into the media socket, the communication to that media enjoys the highest priority. (Example: When the USB memory is inserted, if the media is inserted to the media part, the communication only transfers to the media jack.)
- Restrictions on connections _____ Up to 10 devices (when the maximum number of connections is reached, the memory medium that exceeds the limit will be removed and it cannot be recognized if not reconnected.)
- Consumption current _____ The rated consumption current of USB machine can be connected is up to 500mA.

\times 1 All actions of the corresponding machines cannot be guaranteed. Due to the issues of non-matching and so on, some machines cannot be moved.

(2) Use Communication Function



The sewing machine can use USB memory for data input and output.

1) Set as Communication Mode

Press the mode key **M** to display the mode screen.
Press the item selection key **SEL** to set the communication to the selection mode, and press the edit key **EDIT**.

2) Select Type of Communication

Press the change data key **DATA** to select the type of communication.

3) Select Communication Direction

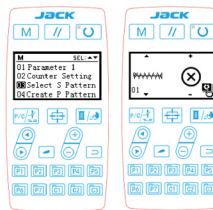
Press the item selection key **SEL** to display the icon that indicates the direction of the communication.

Press the change data key to select the direction of communication.

WRITE : Write the master control data to USB.

READ : Read the USB data into the master control.

2-7.Setting whether the standard pattern can be called out



The undesired patterns cannot be called out, which can prevent the wrong call-out of the unwanted patterns. In addition, the desired patterns can be called out.

Setting Example: Pattern No. 2 is set as call-out disabled.

- 1) To set as the input mode, after the LED off input mode is prepared, it is ready for setting. When it is in the sewing mode, press the standby key **U** to change to the input mode.
- 2) Press the mode key **M** to display the mode screen. Use the item selection key **SEL** to set the standard pattern to be used, and then press the SELECT key.
- 3) Press the item selection key **SEL** to display pattern No. 2.
- 4) Press the data change key to select to use and do not use the pattern.
 - U** : Use
 - X** : Do not use

2-8. Start-up and Change of Memory Switch



1) Setting of Input Mode

After the LED off input mode is prepared, it is ready to change the memory switch data. When it is in the sewing mode, press the standby key **U** to change to the input mode.

2) Call out memory switch data edit screen

When the mode key **M** is pressed, the mode screen (operator level) is displayed. On this screen, select the memory switch data (Level 1).

3) Select the changed memory switch data

Press the item selection key **SEL** to select the data item to be changed.

4) Data Change

In the memory switch data, there are data items with changed values and selected data items.

For items with the changed value marked with the NO. like **U001**, use the change data key **DATA** to change the set value.

→ For details on the memory switch data, refer to 1.2-9. Memory Switch Function List on p.52.

2-9. Memory Switch Function List

For using the memory switch, various actions of the sewing machine set by the program can be used. For the initial value at the time of shipment, various items are set according to the concentrateded settings.

(1) Parameters List of Memory Settings I

Parameter No.	Function	Adjustment Range	Initial Value	Note
1	The highest sewing speed. (Can be set in 100 rpm)	400 ~ 3200	2500	
8	Thread tension in cutting	0~200	0	
9	Changing synchronization time of thread tension in cutting	-20 ~ 7	0	
10	Sewing Speed of the first needle (Can be set in 100 rpm)	400 ~ 1500	400	
11	Sewing Speed of the second needle.(Can be set in 100 rpm)	400 ~ 3000	600	
12	Sewing Speed of the third needle.(Can be set in 100 rpm)	400 ~ 3200	900	
13	Sewing Speed of the fourth needle.(Can be set in 100 rpm)	400 ~ 3200	3200	
14	Sewing Speed of the fifth needle (Can be set in 100 rpm)	400 ~ 3200	3200	
15	Thread tension from sewing	0~200	70	
16	Changing synchronization time of thread tension from sewing	- 22 ~ 30	0	
17	Display of XY magnification and reduction rate, maximum rotation speed limit and change availability.	0: changeable 1: unchangeable	0	
31	The operation keypad (clear key) can be used to stop the operation of sewing machine	0: invalid 1: Reset key of operation panel 2: Pedal reverse and emergency stop button	2	
36	Select the synchronization time for the feed operation When the thread is not tightened, it is set as - direction	- 8 ~ 16	0	There may be the risk of breaking the needle if moved too much to the - side. Please be careful when sewing thick materials.
37	When sewing is finished, XY goes back to the presser foot lifting sequence of the origin	0: First go back to the initial sewing point and then lift the presser foot. 1: Go back to the initial sewing point while lifting the presser foot. 2: Go back to the initial sewing point and manually lift the presser foot	1	
39	It can be set that the origin is always retrieved after the end of each sewing (except for cycle sewing)	0: Do not retrieve the origin 1: Retrieve the origin	0	
40	The origin search for cycle sewing can be set	0: Do not retrieve the origin 1: End of every pattern	0	

42	Set the needle bar stop position	0: Upper position 1: Top dead center	0	It is the upper position when the top dead center is stopped, and it rotates reversely to stop after machine stops
46	The cutting line can be prohibited	0: general 1: cutting line is prohibited	0	
49	The coiling speed can be set	800 ~ 2000	1600	

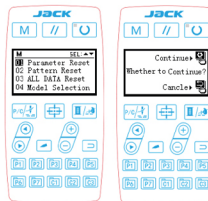
(2) Parameters List of Memory Settings II

Parameter No.	Definition	Adjustment Range	Initial Value	Note
20	Standard pedal and pedal emergency stop position	10~80	30	
21	Standard pedal and pedal emergency switch position	150~290	240	If the set value is increased, then the pedal tread amount will be increased
22	Switch position of standard pedal and high and low range stroke	300~380	330	If the set value is increased, then the pedal tread amount will be increased
23	Standard pedal and starting switch position	400~480	430	If the set value is increased, then the pedal tread amount will be increased
24	Switch between the single and double pedal	0: single pedal; 1: double pedal	0	
27	Presser foot descending speed when stepping down the pedal	100~4000pps	4000	
28	Presser foot ascending speed when stepping down the pedal	100~4000pps	2800	Poor operation can be caused if the excessive ascending if set
29	Ascending speed of cutting line presser foot when the sewing is ended	100~4000pps	4000	Poor operation can be caused if the excessive ascending if set
38	The presser foot can be automatically lifted when the sewing is ended	0: automatic lifting of the presser foot 1: Step down the pedal to Gear 1 and lift the presser foot	0	
44	When cutting line, select the operation with or without the feed in the direction easier for the cutting line	0: With feed 1: Without feed	0	
45	Needle hole guide diameter of feed when cutting line (unit of 0.2 mm can be set)	16~40 (1.6mm~4.0mm)	16	
50	Trimming angle	140~300	160	
56	Movement limit range in the +X direction (right side)	-30~30mm	20	The shape of presser foot is not considered at the shipment status
57	Movement limit range in the -X direction (left side)	-30~30mm	-20	The shape of presser foot is not considered at the shipment status
58	Movement limit range in the +Y direction (rear side)	-30~30mm	15	The shape of presser foot is not considered at the shipment status

Parameter No.	Definition	Adjustment Range	Initial Value	Note
59	Movement limit range in the -Y direction (front side)	-30-30mm	-15	The shape of presser foot is not considered at the shipment status
68	Principal axis stopping compensation	-100+100	33	
120	Number of alarm needle for refilling with lubricating oil	3000-12000	8000	Unit: 10,000 needles
135	Presser foot action sequence before sewing	<p>0: It means after XY finds the origin, the presser foot first automatically feeds to the starting point without load and then descends to press the cloth;</p> <p>1: It means after XY finds the origin, the presser foot stays on the position of the origin and step the pedal to gear 1 and descend the cloth at origin, step down the pedal to the gear 2, the presser foot first automatically moves to the initial sewing point and then starts the sewing;</p> <p>2: The action is the same as 1 at initial sewing. When the sewing is ended, the presser foot stays at the ending point, step down the pedal to gear 1 to return to the origin and lift the presser foot</p>	0	For the case of parameter value of 2, it is only valid when #3B=1
138	Thread tension control method	0: Electronic-like line clamping method; 1: Branching line method	1	
150	When the head is turned up, the safety switch can be invalid	0: Common 1: When the head is turned up, the safety shape is invalid	0	

Note: the above parameters are only for the use of maintenance personnel, and users cannot change them freely.

2-10.Reset Operation



1) Setting of Input Mode

In the input mode of LED off, press the panel side key to enter the reset interface.

2) Enter parameter reset display interface

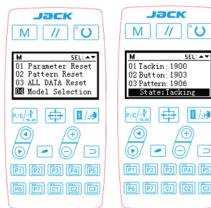
Press the item selection key to select '01 Parameter Data Reset'.

Press the clip key to enter the parameter data reset screen.

If the standby key is pressed, then it needs to be restarted after the interface of LOADING...

※ The operations of pattern reset and the parameter reset are consistent with the parameter data reset operation

2-11.Selection of Machine Model



1) Setting of Input Mode

In the input mode of LED off, press the panel side key to enter the reset interface.

2) Enter model selection display interface

Press the item selection key to select '04 Model Selection'. Press the clip key to enter the model selection screen.

3) Model Change

Press the standby key to enter the model change mode.

If the standby key is pressed, then it needs to be restarted after the interface of LOADING...



III 、 Bartacking Machine Error code list

Error Code	Name of the Error	Description of the Error
E10	Pattern NO exception	The prepared pattern NO is not registered in the ROM, or is set to not read. Pattern NO is 0.
E30	Stop the needle position exception	The needle bar is not on the upper position.
E31	Find the needle position exception	Needle bar can not find the upper position.
E40	Over the sewing area	X / Y exceeds the sewing area.
E43	Zoom in	Stitch is not more than 10mm
E44	Needle limit	2000 pin
E45	Pattern data is abnormal	Can not correspond to the pattern data
E46	Parameter data exception	Can not correspond to the parameter data
E50	time out	The sewing machine presses the reset switch and pauses.
E221	Added lubricant alarm exception	The machine is running until the specified position replenishes the lubricating oil, so the sewing machine is stopped.
E302	Nose turned to abnormal	The machine tipping detection switch is set to ON.
E303	90V power supply exception	90V voltage is too low.
E305	Cutter position is abnormal	The thread cutter is not in the correct position.
E401	Closed loop position	None
E402	Reverse stall	None
E403	Turn around	None
E404	Over temperature	None
E405	X step overcurrent	X step hardware overcurrent. Check the motor, MOSFET drive axle
E406	Y step overcurrent	Y step hardware overcurrent. Check the motor, MOSFET drive axle
E407	STEP1 winding open circuit	None
E408	STEP1 encoder failure	None
E410	Step 90V undervoltage	None
E411	X sync exception	None
E412	Y sync exception	None
E413	X pin number exception	After completing a sewing, the master detects that the command received by the step board in the X direction does not match the number of commands sent by the master.
E414	Y pin number exception	After completing a sewing, the master detects that the command received by the board in the Y direction does not match the number of commands sent by the master.
E415	STEP2 winding open circuit	None
E416	STEP2 encoder failure	None
E417	STEP1 position deviation is abnormal	X axis position error is too large. Check the X-axis encoder, or check that the load is too heavy to jam
E418	STEP2 position deviation is abnormal	Y axis position error is too large. Check the Y-axis encoder, or check that the load is too heavy to jam
E419	Current sensor 1 is faulty	X-axis current sensor midpoint value exception. Check the current feedback circuit.
E420	Current sensor 2 fault	Y-axis current sensor midpoint error. Check the current feedback circuit.
E435	Presser foot overcurrent	Presser foot step current detection is abnormal
E436	Overlines the line	Grab line stepping current detection is abnormal
E447	Press foot step fault	Step or encoder failure
E448	In the pressure foot, grasping line step failure	Step or encoder failure
E733	Spindle overcurrent	The motor is hot and stops.
E739	Spindle motor overload	Spindle motor load is too large, the power exceeds the motor to withstand the range.
E740	The main motor speed is abnormal	Spindle motor overspeed.

III 、 Bartacking Machine Error code list

Error Code	Name of the Error	Description of the Error
E741	The spindle motor reverses abnormally	The spindle motor reverses.
E811	Excessive shutdown	Supply voltage is too high.
E812	Run overpressure	Supply voltage is too high
E813	System undervoltage	Supply voltage is too low
E814	Electromagnet circuit failure	Electromagnet short circuit
E815	Current detection circuit failure	Motor current detection is abnormal
E816	Spindle motor stalled	Spindle motor stalled
E817	Spindle motor stop sensor failure	The stop signal is not detected when the spindle motor is stopped
E818	Spindle motor initial angle measurement error	Spindle motor initial angle measurement error
E819	HALL failure	Main motor HALL fault.
E899	Panel assertion	Panel error, restart
E906	NOS origin search abnormality	The 5th origin sensor does not change
E907	X origin search exception	X origin sensor does not change.
E908	Y origin search exception	Y origin sensor does not change.
E910	The origin of the presser foot is abnormal	The presser foot origin sensor does not change.
E911	X to stepper motor failure	X motor in the action master again send action command.
E912	Y-stepping motor failure	Y The motor sends the action command again in the action.
E913	Threading origin sensor failure	The pin press the motor in action again to send the action command again.
E915	Main circuit board – Operator panel communication failure	The main circuit board and the operator panel can not communicate or communicate incorrectly.