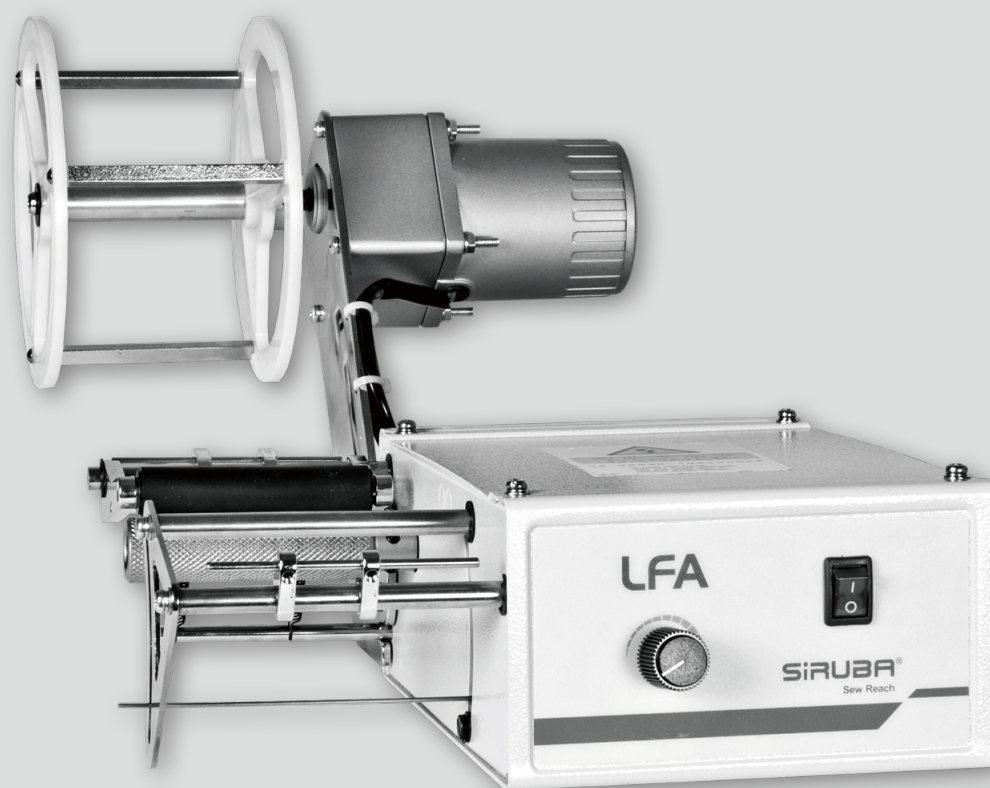


SIRUBA®

銀箭牌工業用縫紉機
INDUSTRIAL SEWING MACHINE

FA/LFA/LFR



使用說明書 INSTRUCTION BOOK








CE

 高林股份有限公司
KAULIN MFG. CO., LTD.

危險水準的說明 Explanation of Dangerous Level

 危險 Dangerous	<p>如果忽視此標記而運行了錯誤的機械操作，保養時肯定會引起當事者或第三者人員重傷或死亡。</p> <p>Don't ignore the warning sign and don't proceed incorrect operation. Or it will cause the person or the third party seriously injured or dead during maintenance.</p>
 注意 Caution	<p>如果忽視此標記而運行了錯誤的機械操作，保養時有可能會引起當事者或第三者人員受傷及造成設備損壞。</p> <p>Ignoring this warning sign and proceed incorrect operation will cause the person involved or the third party wounded and equipment damaged during maintenance.</p>

警告圖案表示及表示標誌的說明 Explanation of Warning Signs and Labels

警告圖案表示 Warning Sign		運動部位，謹防工傷事故 Moving part, beware of industrial accident
		高壓部位，謹防觸電事故 High voltage, beware of electric shock
		高溫部位，謹防燙傷事故 High temperature, beware of burns
指示標誌 Instruction Label		禁止 Prohibited
		地線的接線表示 Indication of ground wiring







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重要安全事項說明

IMPORTANT SAFETY INSTRUCTION

感謝您購買此控制器，為了能使控制器獲得最佳功能以及安全的操作，務必請正確的使用此控制器，使用前請仔細閱讀使用說明書，希望您能長期使用它。請記得將此說明書放在容易取得的地方。

Thanks for buying this controller. For operating safely and getting the best functions of this machine, you must operate it correctly. Please read and follow the instructions of this manual, and keep it at hand for future references. We are confident that you will enjoy this machine as much as we enjoy manufacturing it.

-  1. 當您使用控制器時，除了以下事項外，請注意其他基本安全措施。
-  2. 使用控制器前，除了這本使用說明書外，請詳細閱讀其他相關說明書。此外，請妥善保存此說明書，以便需要時可以隨時查閱。
-  3. 先確定此控制器是符合貴國安全規定及標準後，再使用機器。
-  4. 以下情形，請先關閉電源或拔掉插頭：
 - (1) 控制器內部異常聲響。
 - (2) 修理時。
 - (3) 離開工作場所或工作場所無人看顧時。
-  5. 請勿擅自碰觸運轉中之零件或配件及注意控制器電源是否已開啓，以免導致人員受傷。
-  6. 維修、修改及調整等工作，須由受過適當訓練的人員為之。

-  1. Instead of the following instructions, when you use this controller, please pay attention to the basic safety measures.
-  2. Before using this controller, please read this manual and all related instructions. In addition, please keep this manual for future needs.
-  3. Before using this controller, please ascertain that it conforms with safety standards and regulations of your country.
-  4. Please turn off the power switch or disconnect it for any one of the circumstances of the followings:
 - (1) The abnormal noise inside the controller.
 - (2) When repairing.
 - (3) When the operator leaves the working place or leaves the machine unattended.
-  5. Do not touch any functioning parts and devices. Always attend to whether power switch is on or off before operating in order to prevent anyone from getting hurts.
-  6. Qualified technicians are required for adjustment, modification, and repair. Only use assigned parts for replacement.



7. 一般維修及檢查工作必須由受過適當訓練的人員為之。



8. 電子零件維修及保養必須由資深的電子技師為之，或由非常熟練的人員檢查及指導。



9. 控制器使用一段時間，必須定期清理。



10. 為使機器能正常操作及減少噪音，機台務必平放在地上，機器避免在強烈噪音的環境下操作。



11. 選用適當的電源插頭，並由電子技師將其安裝在機器上，且插頭必須插在配有接地線之插座上。



12. 修改或變更控制器必須依照安全規定及標準，同時採取有效的安全措施，本公司不承擔任何私自因修改或變更控制器所引起損壞之責。



13. 警告提示以兩種符號標示：
(1) 對操作員或服務人員之傷害危險。
(2) 必須特別注意事項。



7. Routine maintenance and service must be performed by well trained people or qualified technicians.



8. Maintain and check the electronic parts must be done by qualified electrician or well-trained people.



9. To ensure the best performance, clean the machine periodically is necessary.



10. In order to operate properly and to reduce the noise, please place the machine flat and level on the ground. Avoid operating the sewing machine at a noisy surrounding.



11. Select a proper power plug and install it by an electrician. Please connect the power plug to a grounded receptacle.



12. Any modification or conversion made on this controller must be conformed with the safety standards and regulations. Precaution is necessary. No responsibility will our company take for damages caused by any modification or conversion of this controller without permission.



13. Two safety warning signs are applied as warning signs:
(1) For the safety of operators and service people.
(2) Special note.

規格

SPECIFICATIONS

外型尺寸 External dimension	外觀 Appearance 長Length 220 mm × 寬Width 150 mm × 高Height 86.5 mm	
電氣箱重量 Electrical box weight	4.1公斤/kg	
額定消耗電力 Rated power consumption	30 W	
使用溫度範圍 Temperature range	5°C~55°C	
使用溼度範圍 Humidity range	35%~85%(無結露/Non-condensing)	
電源電壓 Power voltage	1 φ AC110V±15% 50/60Hz	1 φ AC220V±15% 50/60Hz
	FA-A1 LFA-A1 LFR-A1	FA-A2 LFA-A2 LFR-A2

安裝

INSTALLATION

1. 以 4 顆木螺絲將控制器固鎖於桌板上。
(圖 1)
2. 將電源線與縫紉機之開關盒電源鎖配在一起。(圖 2)

註：

- 1.此機種使用單相AC110V或單相AC220V，若配接錯誤或所提供的電源錯誤會造成控制器燒毀。
- 3.將預送帶的物件依照圖3所示，依序穿過送帶機構。

- 1.Fix the controller on the table by 4 wood screws.(Fig.1)
- 2.Connect the power wire with the power switch box of the sewing machine.(Fig.2)

NOTE:

- 1.Single phase AC110 or AC220V is applicable to this machine, but if is connected to the wrong power voltage or is supplied with the wrong power, the controller may burn.
- 3.As shown in the figure 3, pass the tape pre-feeding object through the tape feeding mechanism in order.

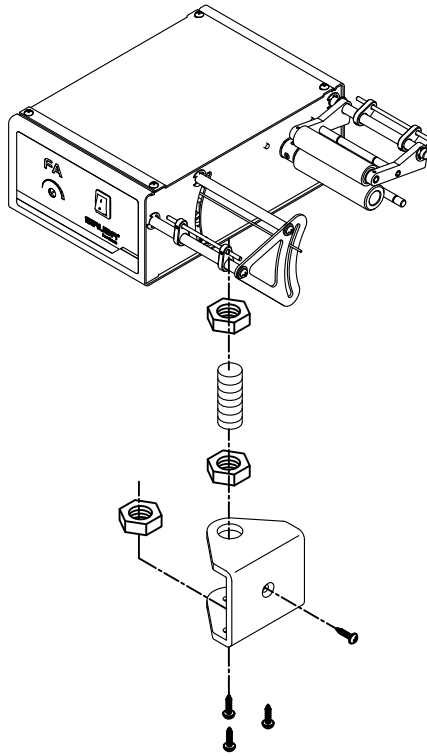


圖1/ Fig.1

電源開關接線方式
The wire connection
of power switch

1 ϕ AC110V \pm 15% 50/60Hz	1 ϕ AC220V \pm 15% 50/60Hz
FA-A1 LFA-A1 LFR-A1	FA-A2 LFA-A2 LFR-A2

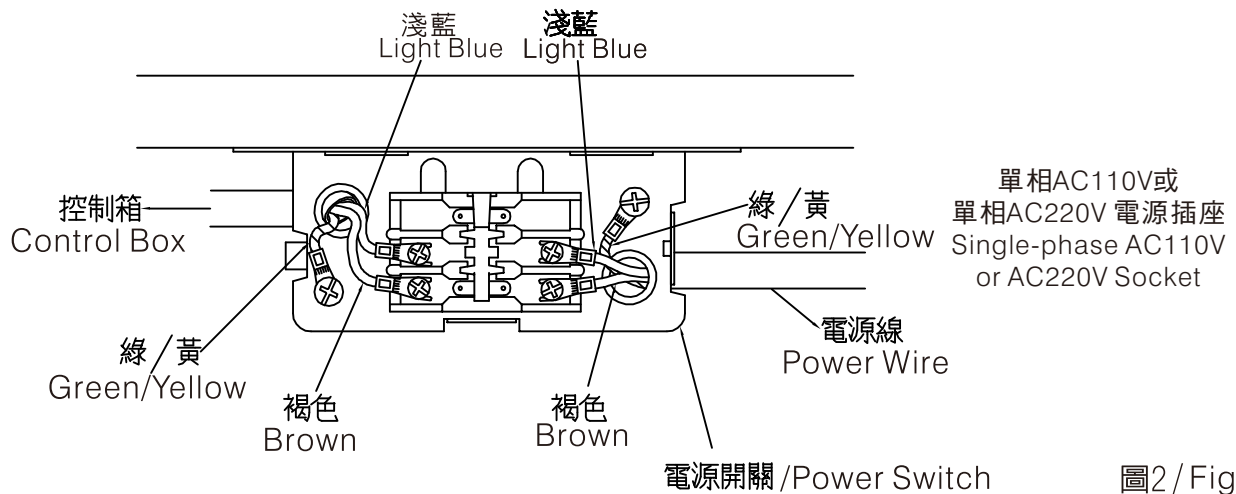
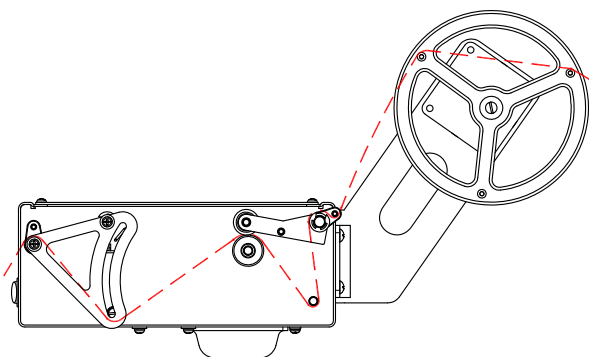


圖2/ Fig.2



PS.LFR才有配備打帶輪組 (LF290-A2/LF290-A1)。
Only LFR is equipped with the tape
attaching wheel(LF290-A2/LF290-A1)。

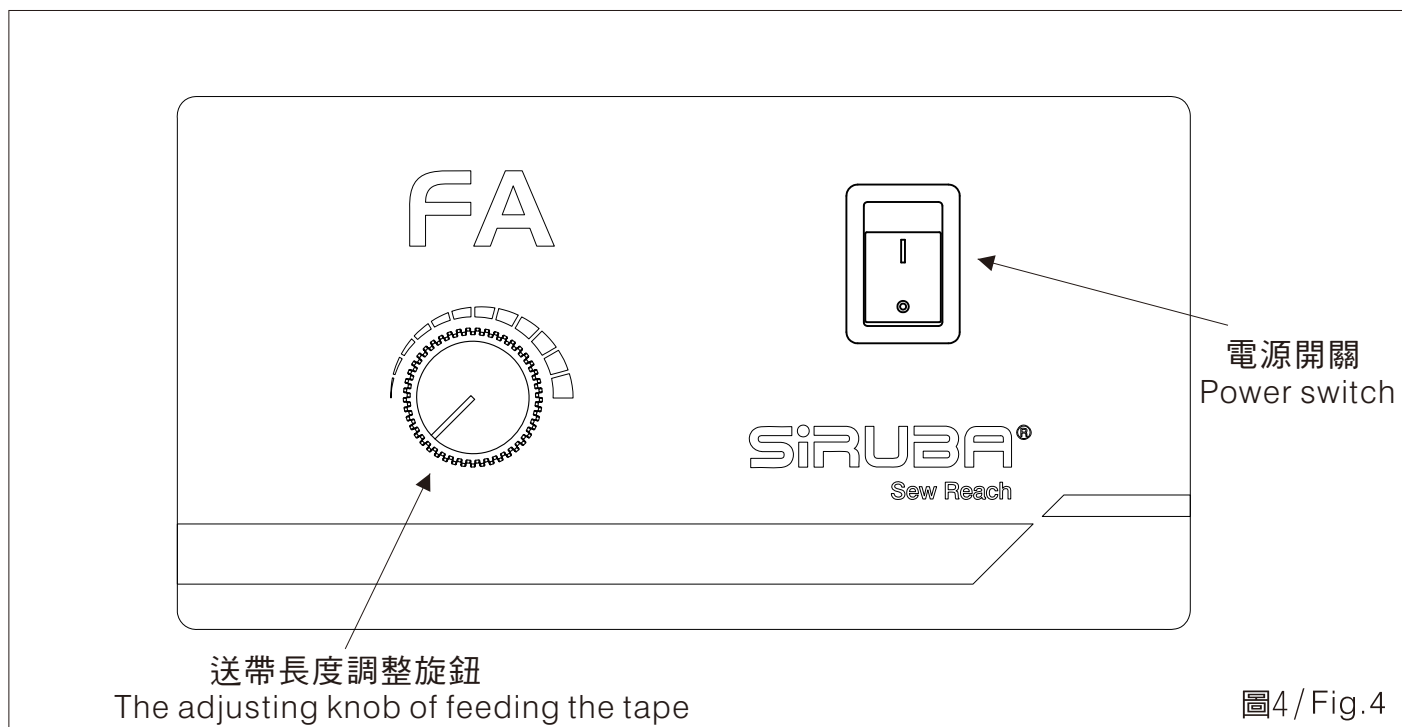
圖3/ Fig3

操作

OPERATION

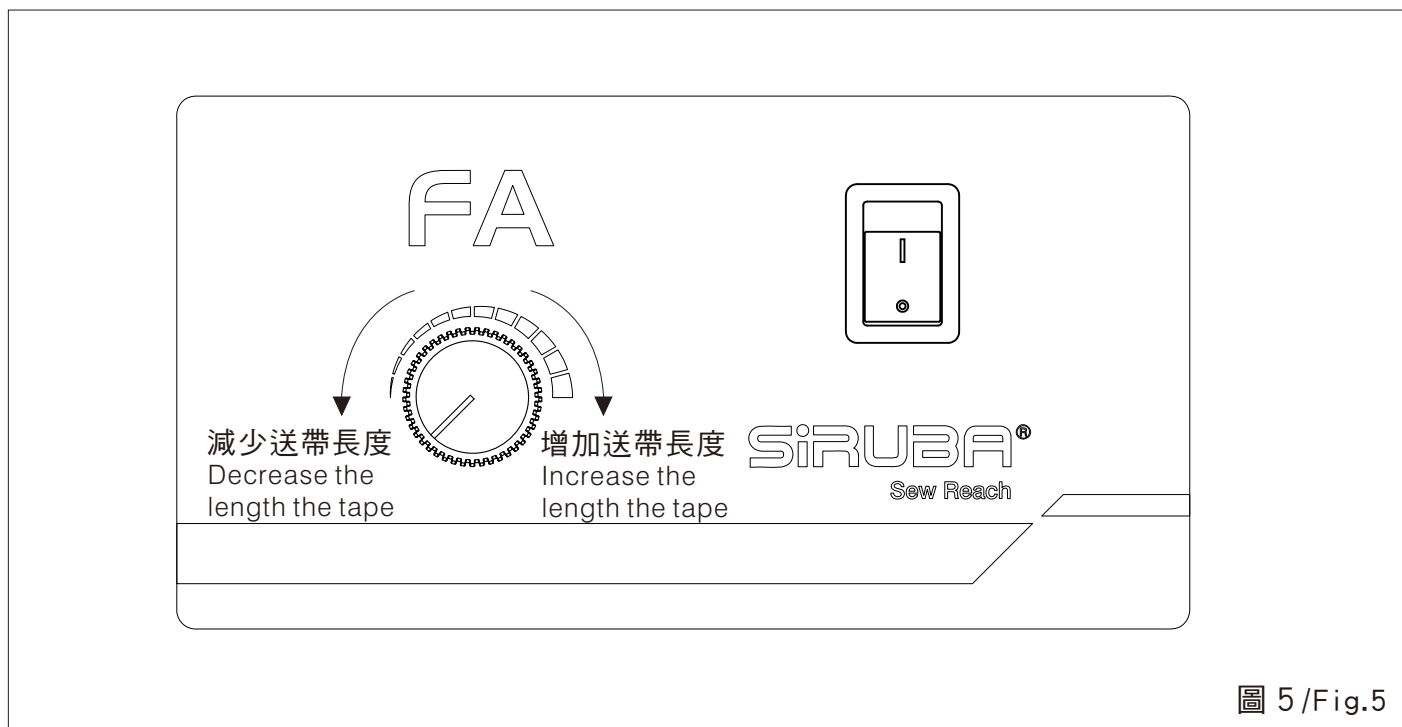
面板操作說明：

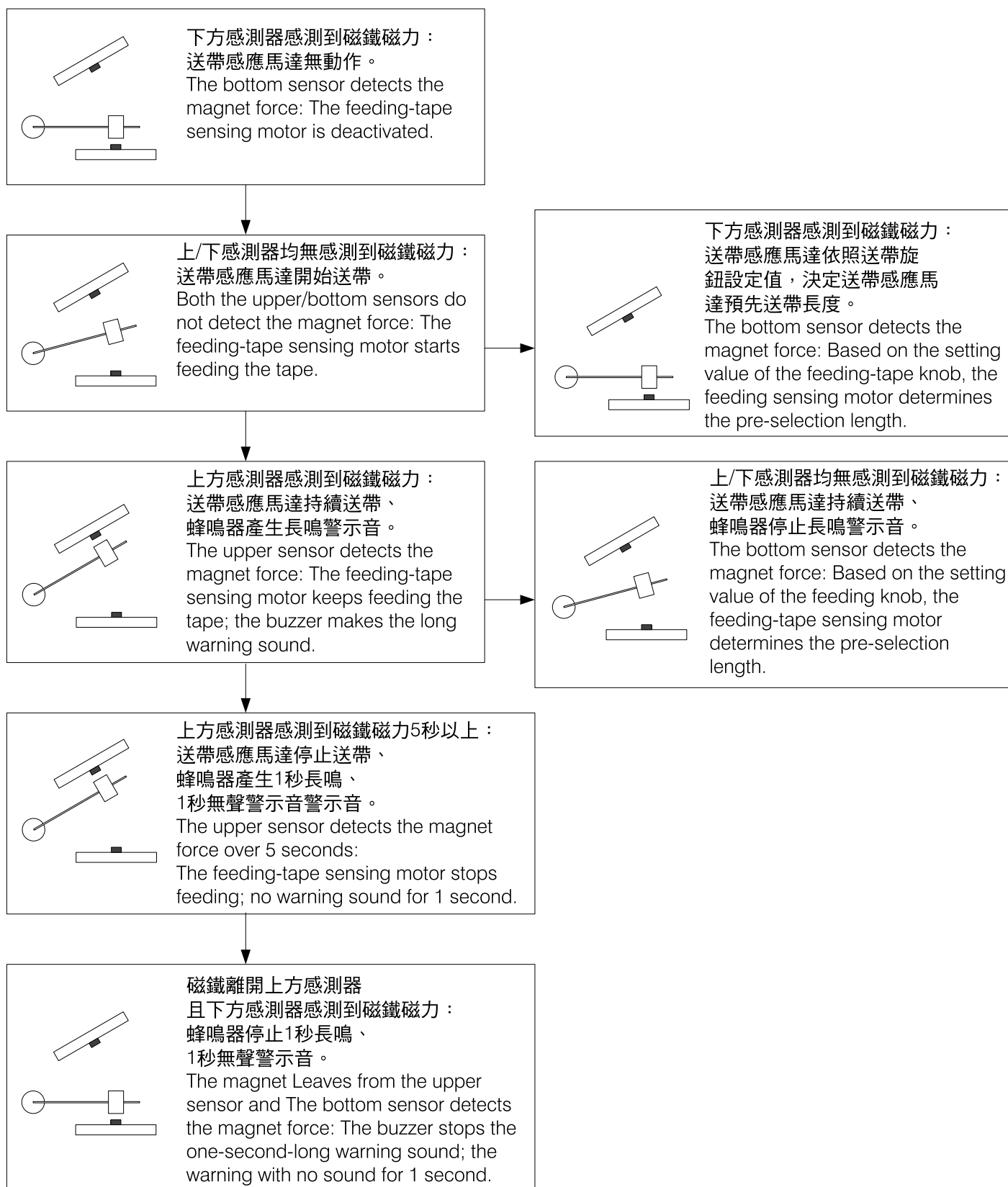
Panel operation instruction:



送帶操作說明：

Description of the operation of feeding the tape





PS：打帶感應馬達：

啟動運轉的時間與送帶感應馬達同時。

停止運轉的時間比送帶馬達慢 0.5 秒。

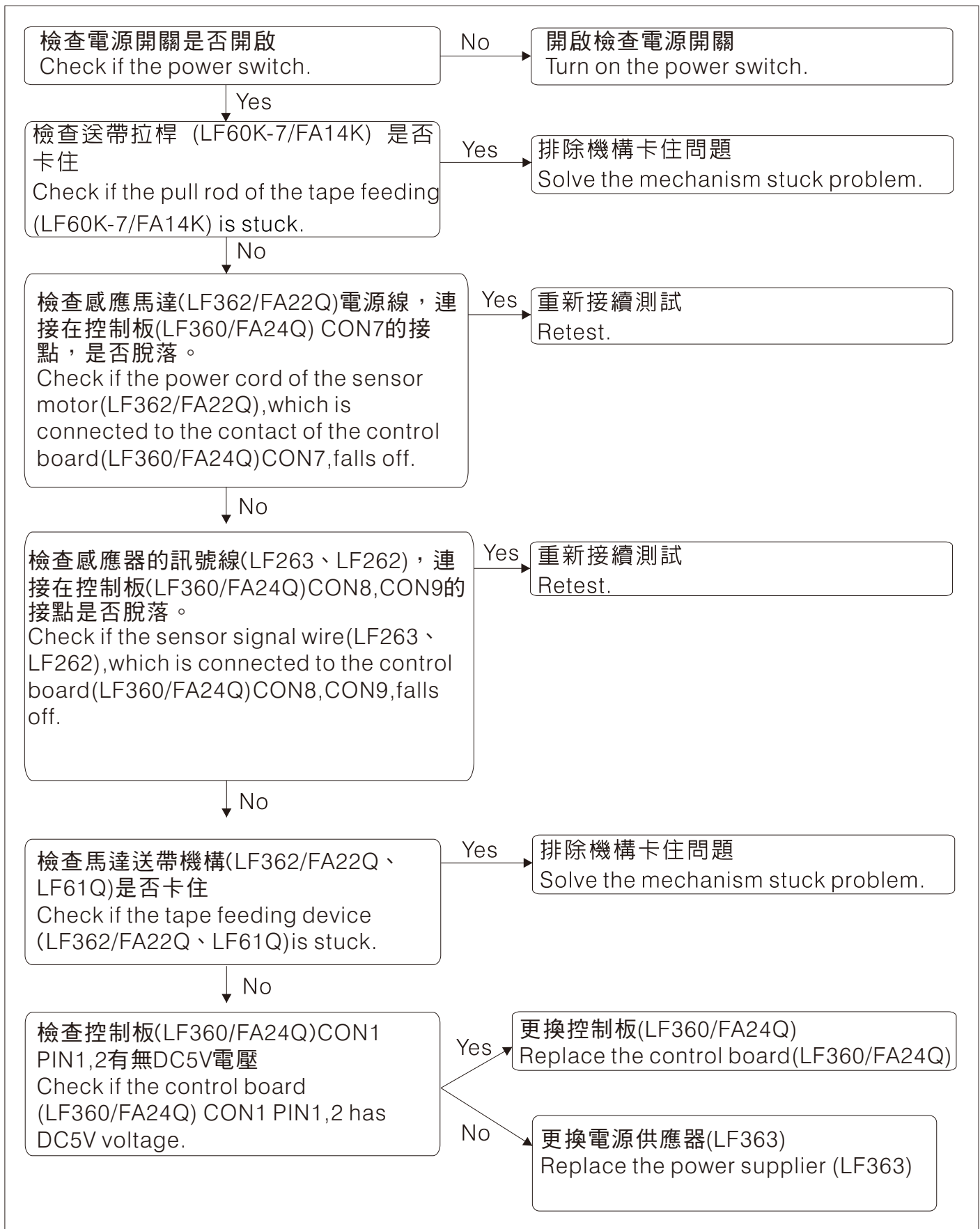
PS: The tape attaching motor:

The time of starting running is the same as the tape attaching motor.

The time of stopping running is slower 0.5 second than the tape attaching motor.

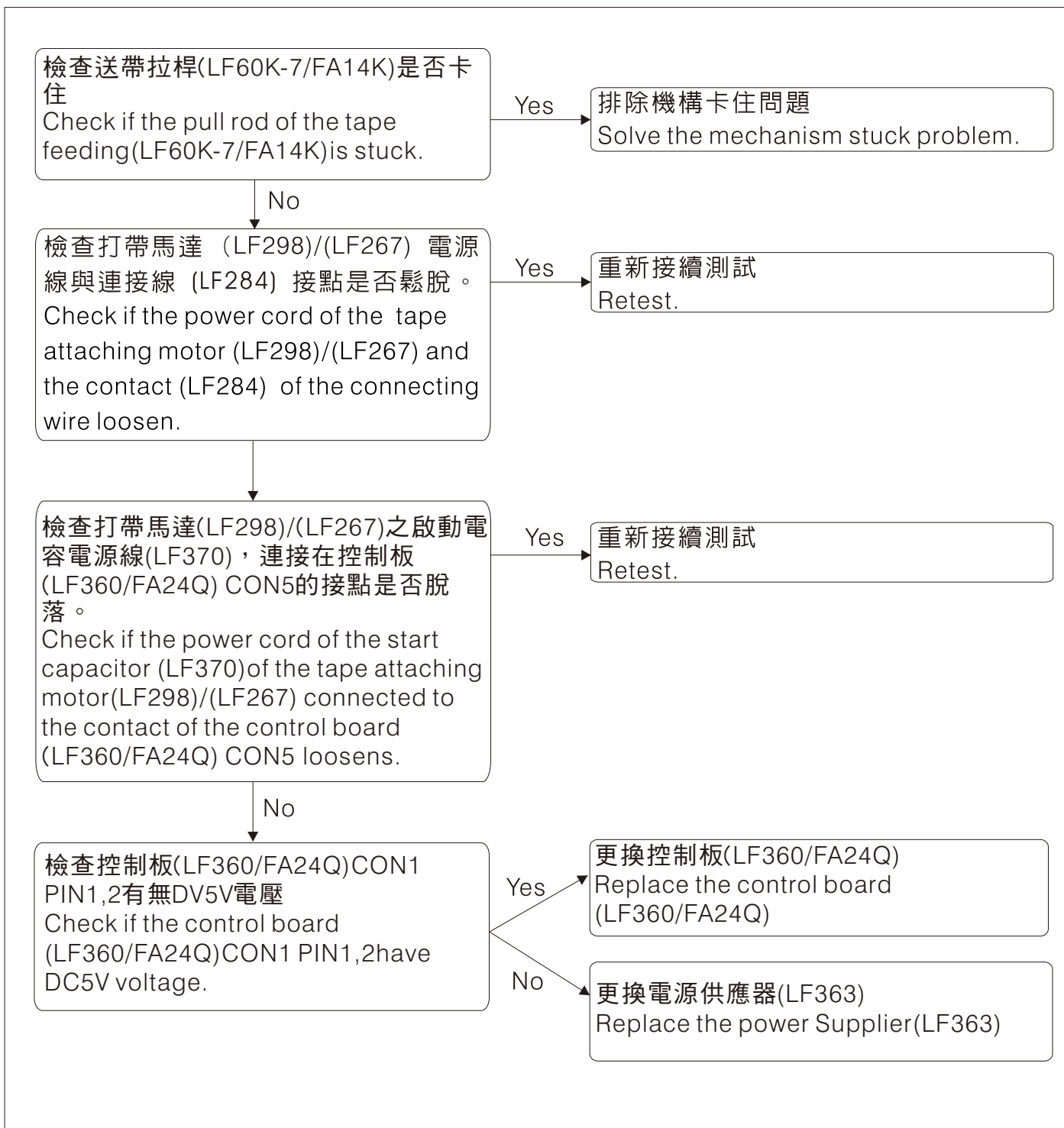
1. 送帶馬達無動作：

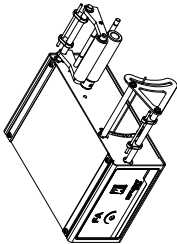
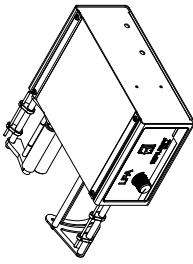
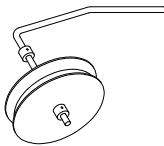
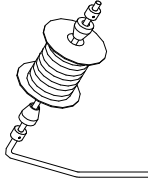
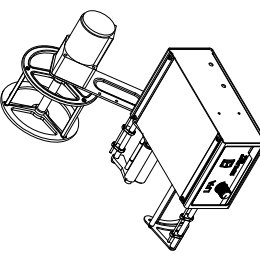
1. Tape feeding motor doesn't work：



2. 打帶馬達無動作：

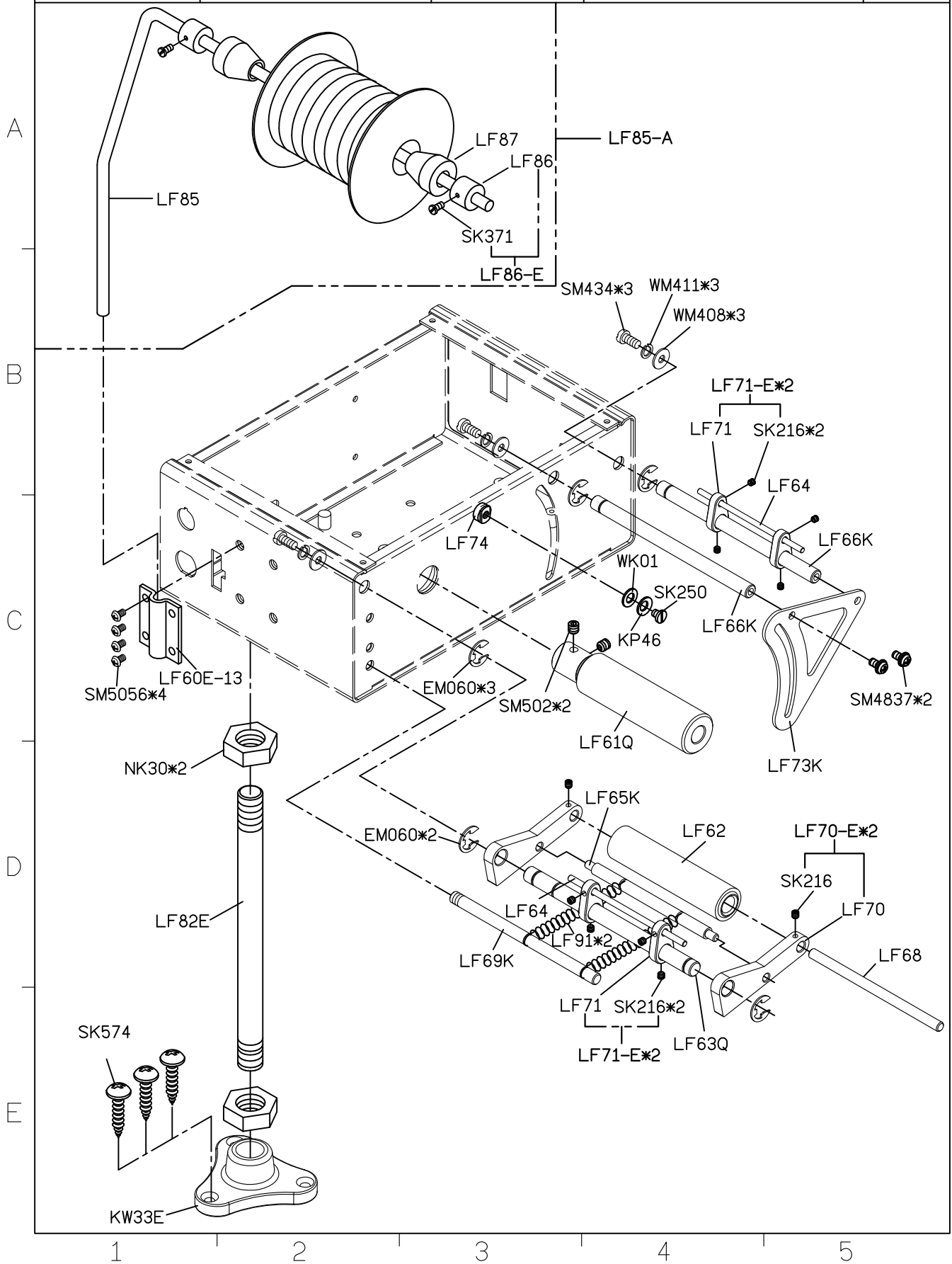
2.Tape attaching motor doesn't work：

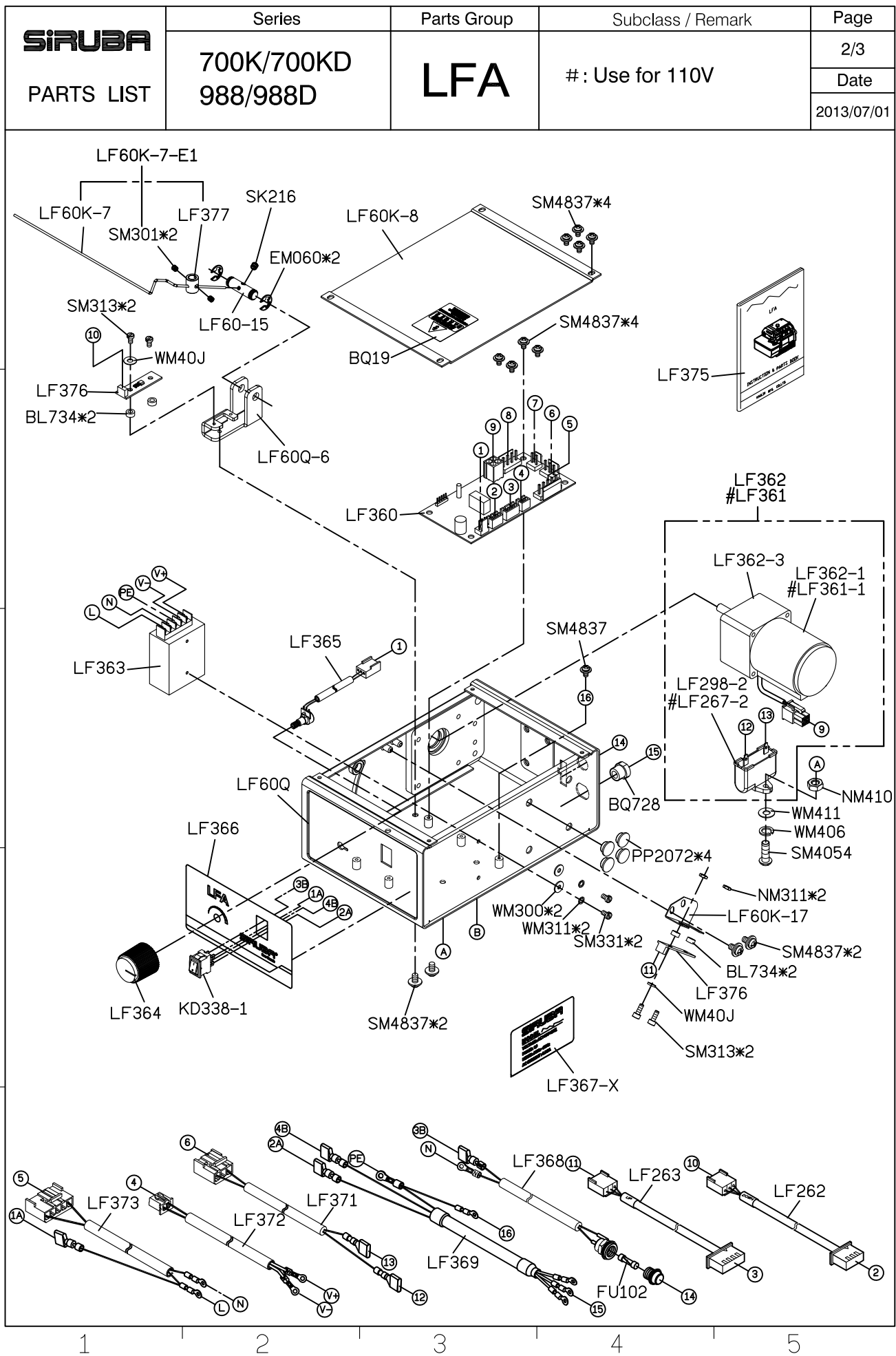


工作電壓 Voltage	機型 Machine Type	搭配機型 Collocated Machine									
			側邊送帶控制器 Aside feeding controller	(FA15Q-A1)	(FA15Q-A2)	上方送帶控制器 Top feeding controller	(LF60Q-A1)	(LF60Q-A2)	側送布輪組 Aside fabric gear comb. (FA10E-A)	上送布輪組 Top fabric gear comb. (LF85-A)	上方送帶控制器+醒帶裝置 Top feeding controller + Elastic feeding device LF60Q-RA1+ LF290-A1
單相 AC220V Single phase AC220V	FA-A2	三針車、拷克車 Interlock stitch machine / Overlock stitch machine	●				●				
	LFA-A2	三針車、拷克車 Interlock stitch machine / Overlock stitch machine				●		●			
	LFR-A2	三針車、拷克車 Interlock stitch machine / Overlock stitch machine						●			●
單相 AC110V Single phase AC110V	FA-A1	三針車、拷克車 Interlock stitch machine / Overlock stitch machine	●				●				
	LFA-A1	三針車、拷克車 Interlock stitch machine / Overlock stitch machine				●		●			
	LFR-A1	三針車、拷克車 Interlock stitch machine / Overlock stitch machine						●	●	●	

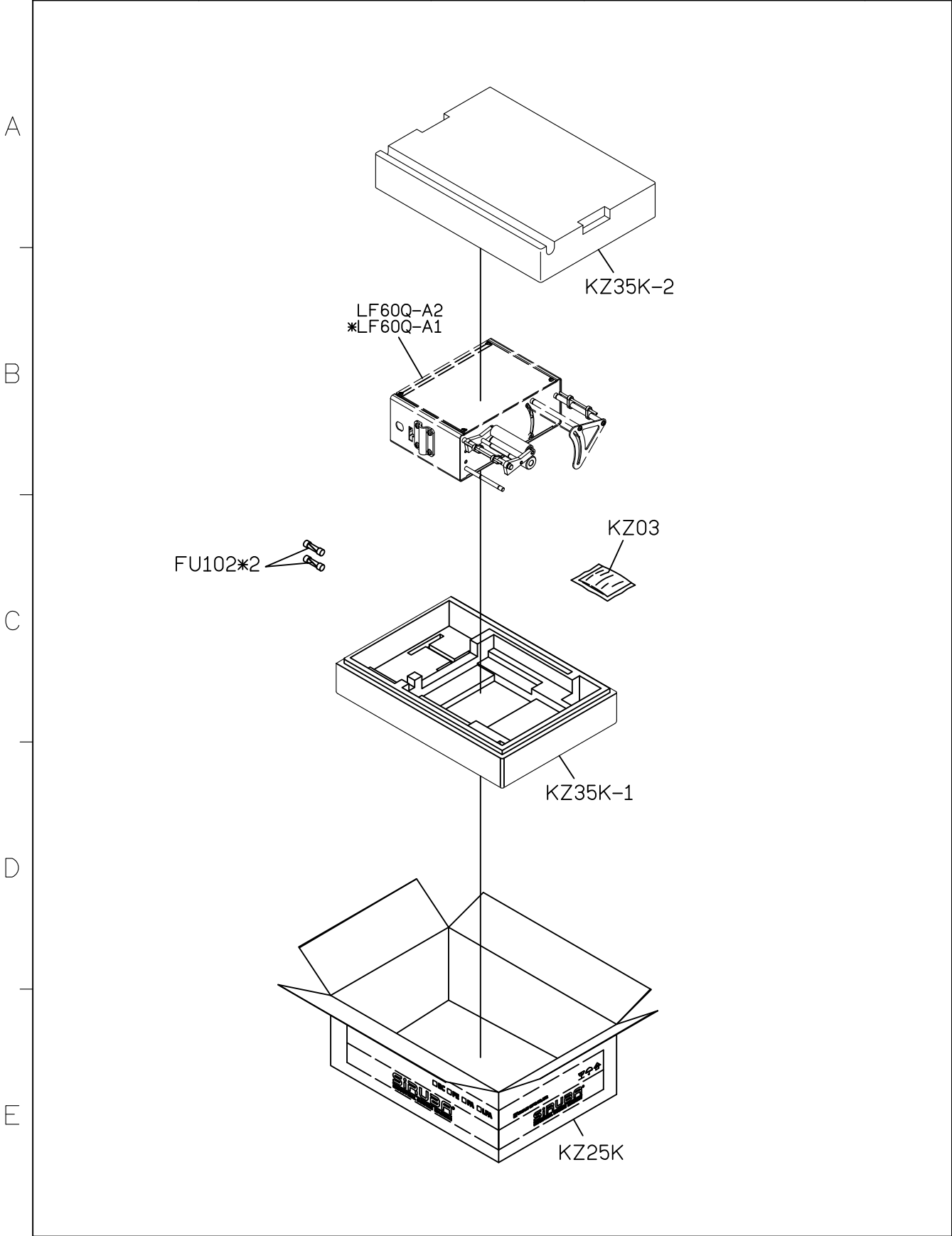
FA/LFA/LFR規格件表 ● FA/LFA/LFR CONVERSION CHART

SIRUBA PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	700K/700KD 988/988D	LFA		1/3
				Date
				2013/03/25





<div>SIRUBA</div> <div>PARTS LIST</div>	Series	Parts Group	Subclass / Remark	Page
	700K/700KD 988/988D	LFA		3/3
				Date
				2013/03/25

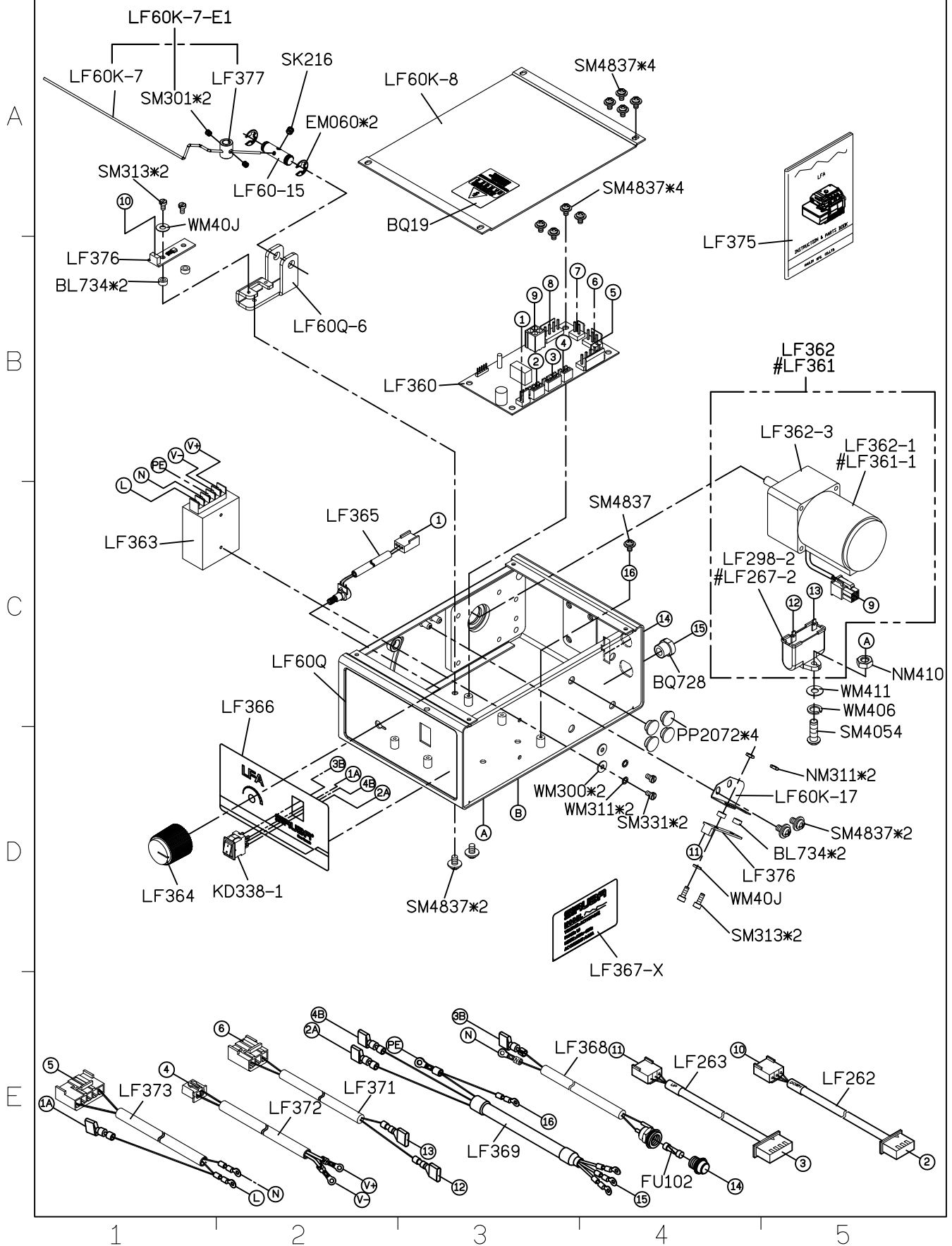


PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	700K/700KD 988/988D	LFR	LFRK-R1 Use for Single Phase AC 110V	1/4
			LFRK-R2 Use for Single Phase AC 220V	Date 2013/03/25

Diagram illustrating the assembly structure with various components labeled:

- LF85
- LF87
- LF86
- SK371
- LF86-E
- LF85-A
- SM434*3
- WM411*3
- WM408*3
- LF71-E*2
- LF71
- SK216*2
- LF64
- LF66K
- LF74
- Wk01
- SK250
- KP46
- LF66K
- SM4837*2
- LF61Q
- LF73K
- EM060*3
- SM502*2
- NK30*2
- LF82E
- SK574
- KW33E
- EM060*2
- LF65K
- LF62
- LF70-E*2
- SK216
- LF70
- LF68
- LF69K
- LF91*2
- LF63Q
- LF71
- SK216*2
- LF71-E*2

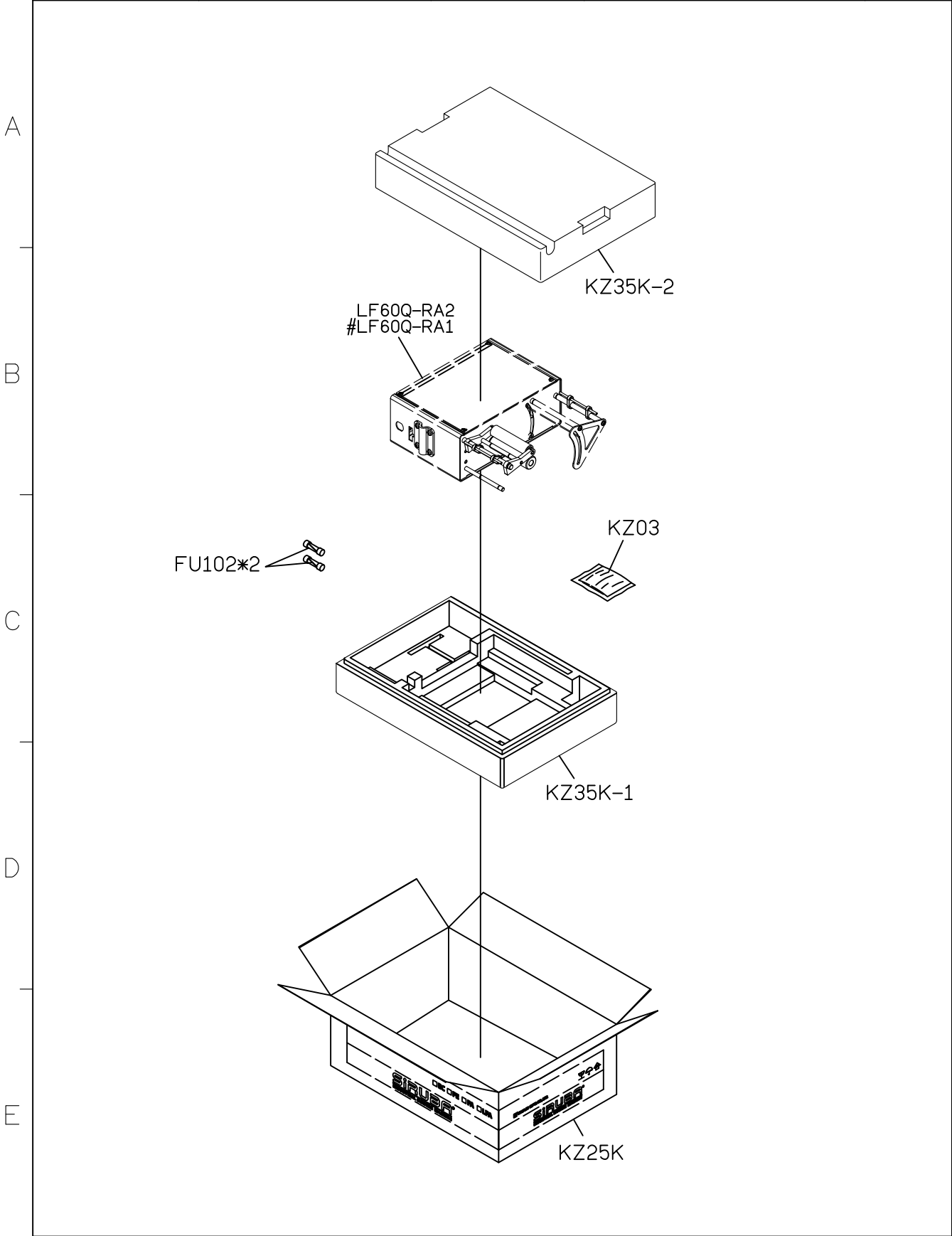
SIRUBA PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	700K/700KD 988/988D	LFR	# : Use for 110V	2/4
				Date
				2013/07/01



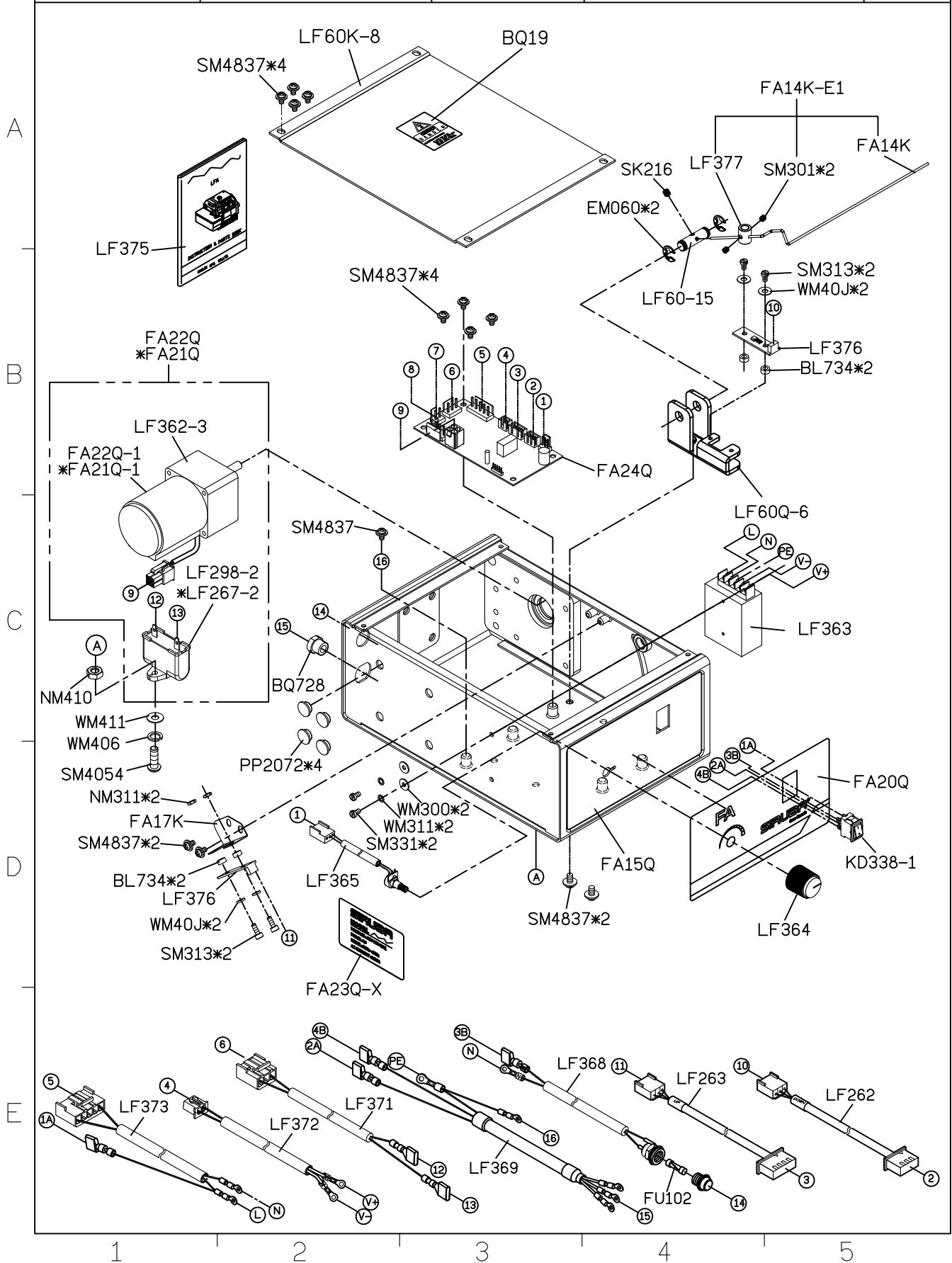
<div> <div>SIRUBA</div> <div>PARTS LIST</div> </div>	Series	Parts Group	Subclass / Remark	Page
	700K/700KD 988/988D	LFR	#:Use for 110V	3/4
				Date
				2013/07/01

LF 290-A2(220V)
#LF 290-A1(110V)

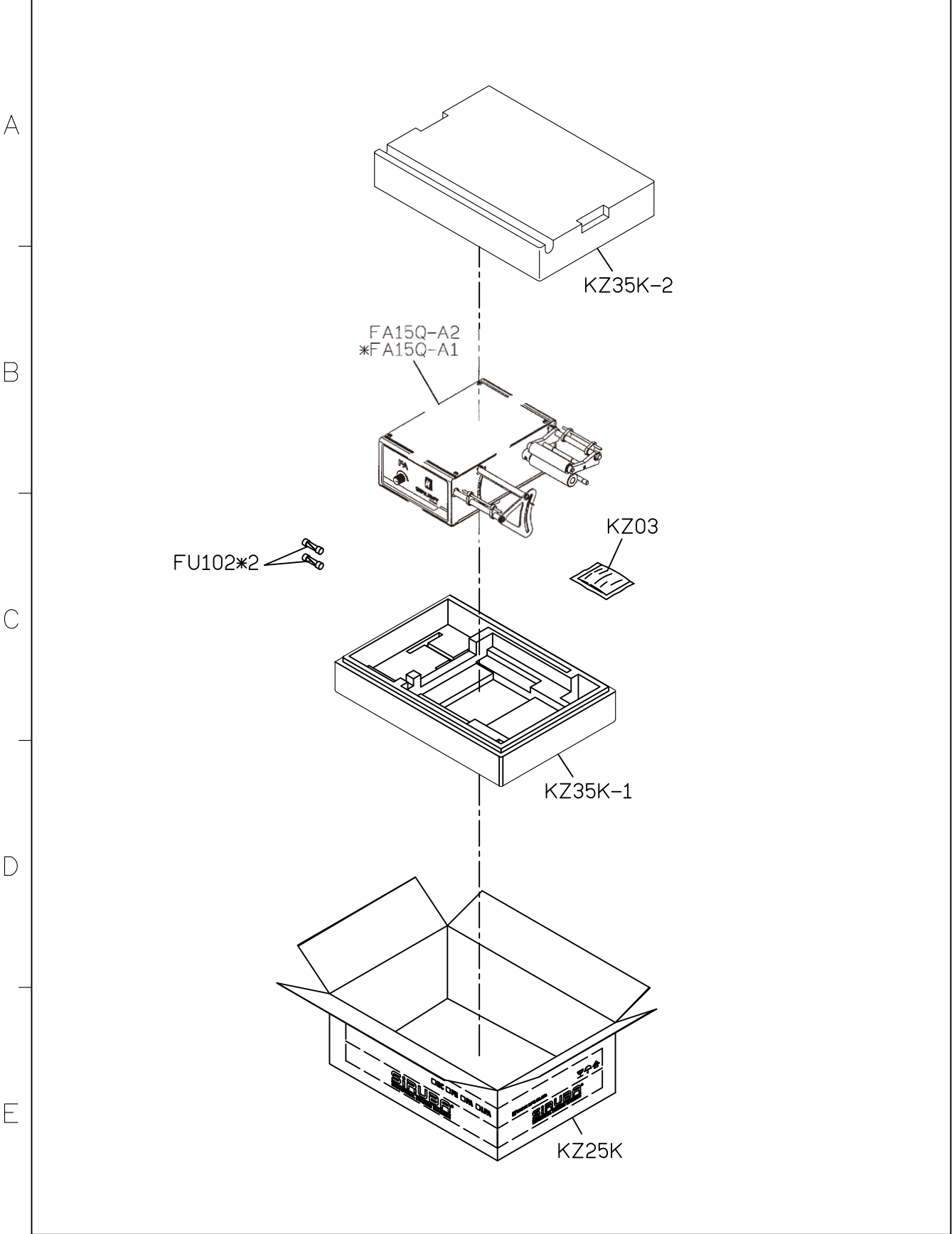
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	700K/700KD 988/988D	LFR	# :Use for 110V	4/4
				Date
				2013/03/25



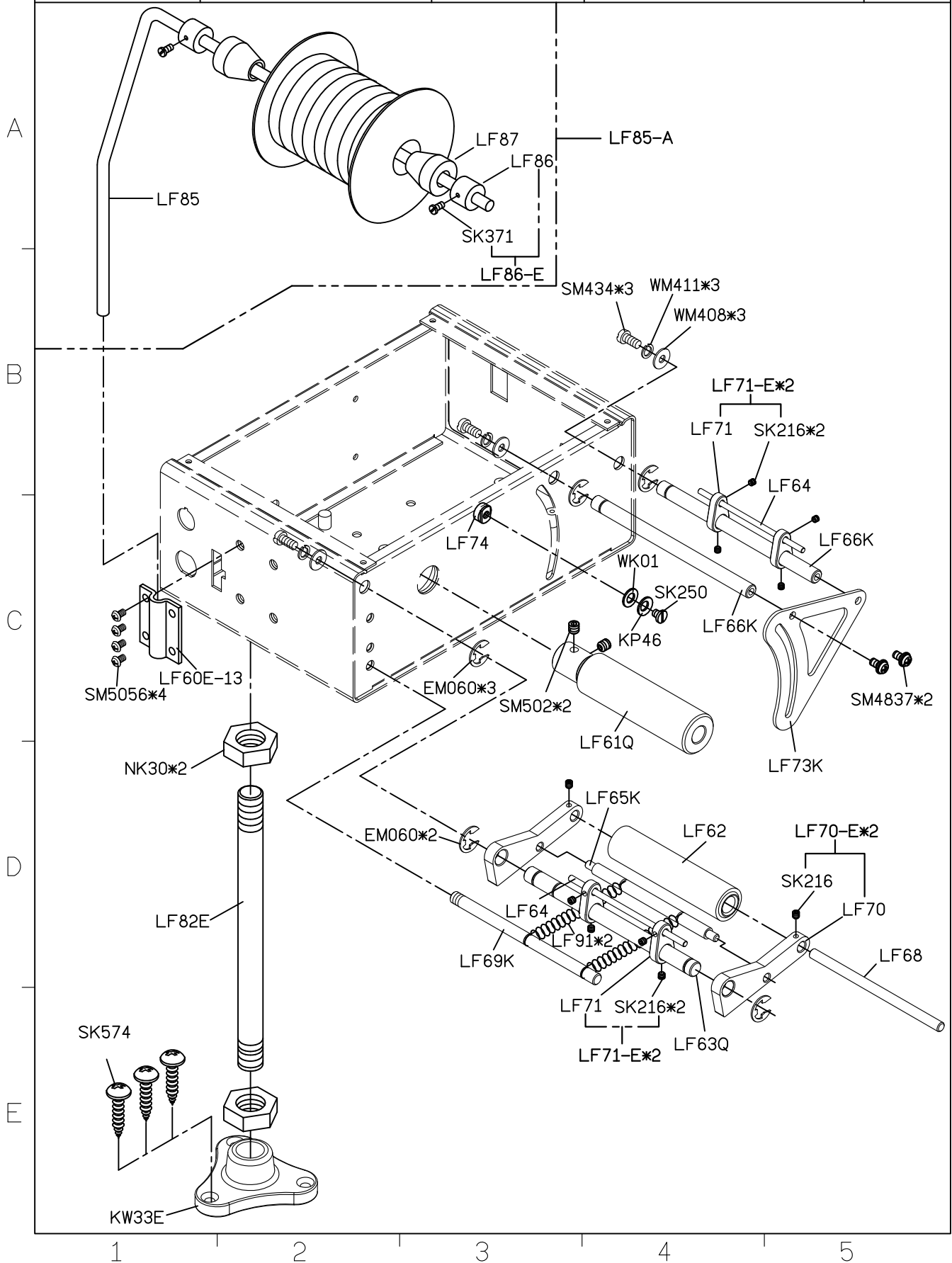
SIRUBA PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	F007K/F007KD F858K	FA	*: Use for 110V	2/3
				Date
				2016/9/5



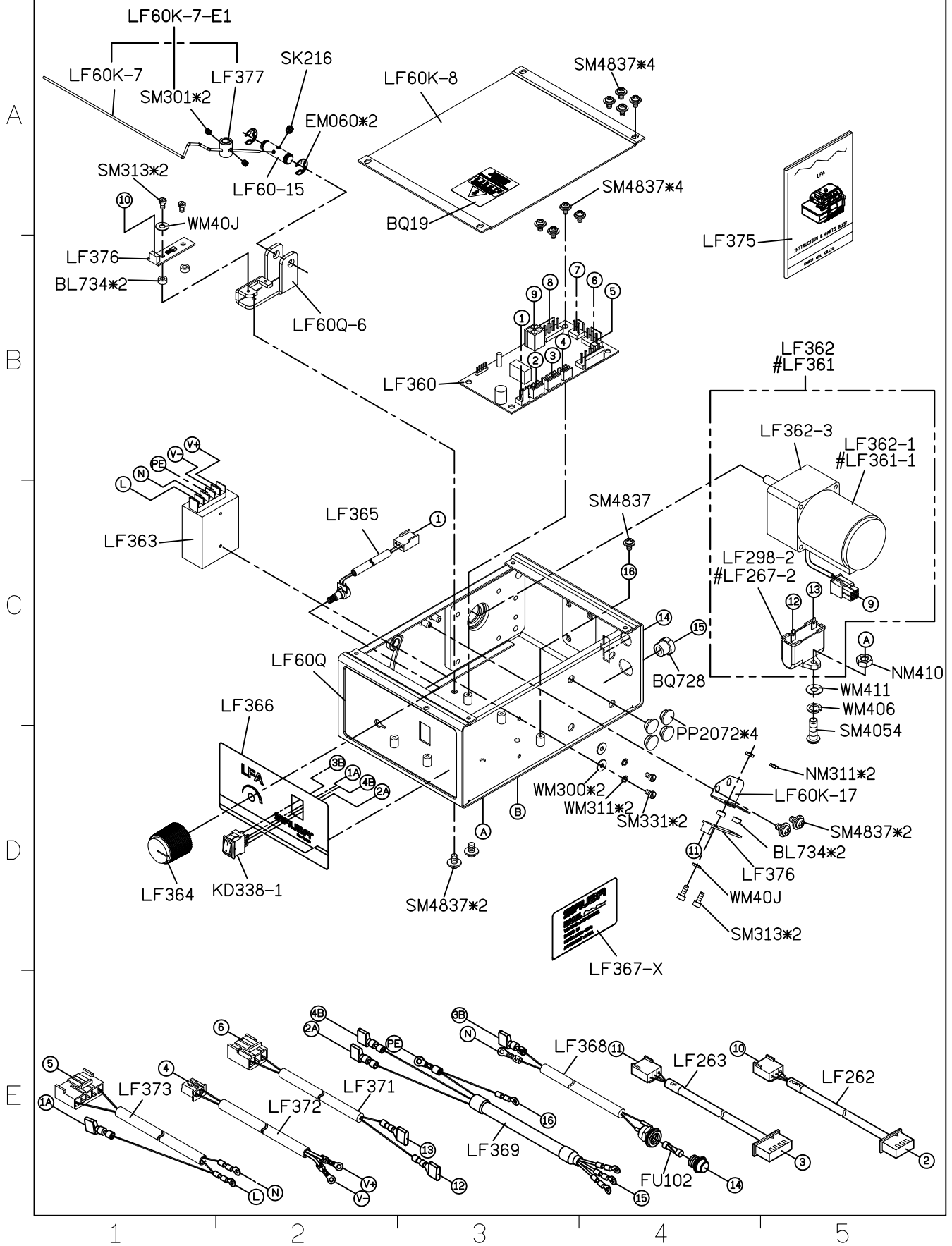
<div>SIRUBA</div> <div>PARTS LIST</div>	Series	Parts Group	Subclass / Remark	Page
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				Date
				2016/9/5



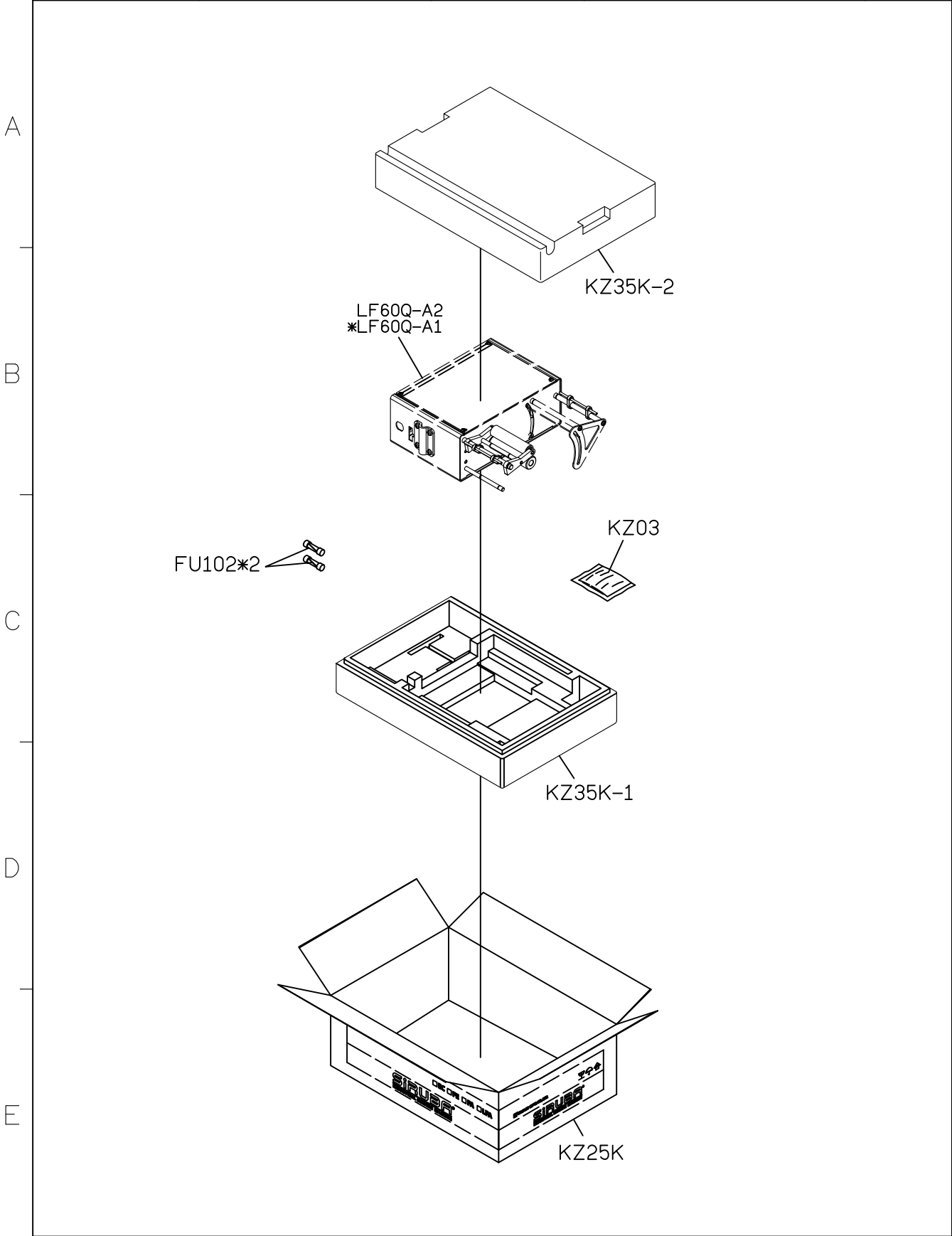
SIRUBA PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	F007K/F007KD F858K	LFA		1/3
				Date
				2016/9/5



SIRUBA PARTS LIST	Series	Parts Group	Subclass / Remark	Page
	F007K/F007KD F858K	LFA	# : Use for 110V	2/3
				Date
				2016/9/5



<div>SIRUBA</div> <div>PARTS LIST</div>	Series	Parts Group	Subclass / Remark	Page
	F007K/F007KD F858K	LFA		3/3
				Date
				2016/9/5





FA/LFA/LFR

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