

一般安全指示說明 General Safety Instructions

警告！當使用這台機器時，基本的安全預防措施應加以遵守，以避免火災、電擊和個人的受傷。
Warning ! When using this machine, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury .

請在使用這台機器時，先閱讀下列安全性注意事項並妥善收藏本說明書。
Read all these instructions before operating this product and save these instructions.

1. 請保持工作環境之清潔 Keep work area clean
雜亂的區域及板凳易引起意外之發生。
Cluttered areas and benches invite injuries.
2. 考慮到工作區域之環境 Consider work area environment
請勿將電力暴露於雨水之中，請勿使用潮溼之工具，或在潮溼之環境工作，請保持工作區域之明亮，請勿使用易遭火災或爆炸之工具。
Do not expose power to rain. Do not use machine tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.
3. 請對電擊特別小心 Guard against electric shock
請勿接觸地線或有接地線之物品表面（如管線、散熱器或電冰箱）。
Avoid body contact with earthed or grounded surfaces (e.g. pipes , radiators , refrigerators)
4. 請勿讓兒童靠近 Keep children away
請勿讓訪客觸摸工具或延長線。
Do not let visitors touch the tool or extension cord.
5. 請穿著適當衣物 Dress properly
請勿穿著寬鬆衣物或配戴珠寶，因這些物品有可能會捲入機器內，如留有長髮，則煩請戴上髮套。
Do not wear loose clothing or jewelry, they can be caught in moving parts. Wear protecting hair covering to contain long hair.
6. 請勿濫用電線 Do not abuse the cord
請勿以電線提著機器或從插頭上用力拔起，請勿讓電線靠近熱油或物品之尖銳邊緣。
Never carry the machine by cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
7. 請小心維護機器 Maintain machine with care
請依照使用說明按時潤滑機器以及更換零件，定期檢查工具電線，如有損傷，請儘早授權服務機構修理。
Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged , have it repaired by an authorized serviced facility.
8. 關閉機器電源 Disconnect machine power
當不使用機器時，或在維修、更換零件附件時，請先關閉電源。
When not in use, before servicing and changing accessories , please disconnect electricity.

一般安全指示說明 General Safety Instructions

9. 請避免無意中開機 Avoid unintentional starting

在搬運有插入電源之工具時，請勿將手放置在開關之位置，當插入電源線時請先確認開關是在關閉的位置。

Do not carry plugged - in tool with finger on the switch. Ensure switch is off when plugging in.

10. 檢查受損零件 Check damaged parts

在進一步的使用機器前，在更換受損零件之後，都應確實檢查來決定機器是否能適當操作，並達到想要之功能。

Before further use of the machine, after replaced the damaged parts, the machine should be carefully checked to determine that it will operate properly and perform its intended function.

11. 警告 Warning

如使用在此本使用說明中，任何未經推薦之零件，將會有可能帶來人身之危險。

The use of any accessory or attachment, other than those recommended in this instruction manual, may present a risk of personal injury.

12. 請使用合格之維修人員修理您的機器 Have your machine repaired by a qualified person

任何修理需經過合格之維修人員處理，並使用原廠零件。

Repairs should only be carried out by qualified persons and using original spare parts.

對於電力聯結之特別警告 Special Warning For Electric Connection !

1. 請在此台機器中使用合於歐州規範之開關。

Incorporate this machine only with "CE" certificate switch.

2. 請依照使用說明來安裝控制盒。

Follow the instruction manual to install control device.

3. 永遠在使用機器上安裝地線。

Always earth machine appropriately during operation.

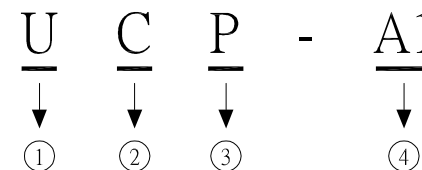
4. 在做任何調整、零件更換或維修之前，請確認所有電源線已從插頭上拔除，以避免機器無意中突然啟動時之危險。

Before adjustment, parts change or servicing must be sure to pull out the plug from socket to prevent the hazard of unintentionally start of machine.

CT9000 Series 高速方筒型繃縫機 High Speed Cylinder Bed Interlock machine

● 裝置編號說明 Model numbering

CT9000-0-356M / RP1A / UCP-A1



電動式自動切線裝置 Electric under bed thread trimming system

Model	(UTC04) 切底線裝置 Under bed thread trimmer	(STC02) 切上飾線裝置 Top cover thread trimmer	(WPG01) 撥線裝置 Wiper	(PFE01) 壓腳提昇裝置 Presser foot lifter
UCE-A1	●	●		●
UCE-A2	●		●	●
UCE-A3	●	●	●*	●
UCE-A4	●			●

* 包裝於附件箱中 Packed in the accessories box

- ①. 自動切線裝置代號
Under bed thread trimmer device
- ②. 機型 - C : 方筒型繃縫機 F : 平台型繃縫機
Model - C : Cylinder bed interlock F : Flat bed interlock
- ③. 動力 - P : 氣動式 E : 電動式
Power - P : Pneumatic E : Electric
- ④. 裝置組合代號
Combination of devices

氣動式自動切線裝置 Pneumatic under bed thread trimming system

Model	(UTB02) 切底線裝置 Under bed thread trimmer	(UTG02) 切底線裝置 Under bed thread trimmer	(UTH02) 切底線裝置 Under bed thread trimmer	(UTB04) 切底線裝置 Under bed thread trimmer	(STB02) 切上飾線裝置 Top cover thread trimmer	(WPC) 撥線裝置 Wiper	壓腳提昇裝置 Presser foot lifter	備註 comment
UCP-A1	●				●		●	
UCP-A2	●					●	●	
UCP-A3	●				●	●*	●	
UCP-A4	●						●	
UCP-A5		●			●		●	CT9311、CT9085用 For CT9311、CT9085
UCP-A6		●				●	●	
UCP-A7			●		●		●	上飾線切線、底線切線及撥線裝置 個別控制
UCP-A8			●			●	●	Top cover thread trimmer, under bed thread trimmer and wiper are controlled separately
UCP-A9			●		●	●*	●	
UCP-AA				●	●		●	CT9060用 For CT9060

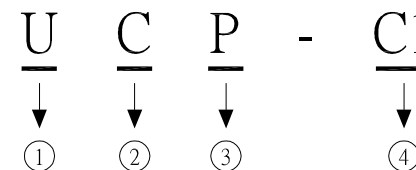
* 包裝於附件箱中 Packed in the accessories box

CT9711 Series 高速細筒型繙縫機 High Speed Extra Small Cylinder Bed Interlock machine

● 裝置編號說明 Model numbering

CT9711-0-356M / RP004 /

UCP-C1



電動式自動切線裝置 Electric under bed thread trimming system

Model	(UTC06) 切底線裝置 Under bed thread trimmer	(STC02) 切上飾線裝置 Top cover thread trimmer	(WPG01) 撥線裝置 Wiper	(PFE01) 壓腳提昇裝置 Presser foot lifter
UCE-C1	●	●		●
UCE-C2	●		●	●
UCE-C3	●	●	●*	●
UCE-C4	●			●

* 包裝於附件箱中 Packed in the accessories box

- ①. 自動切線裝置代號
Under bed thread trimmer device
- ②. 機型 - C : 方筒型繙縫機
Model - C : Cylinder bed interlock
- ③. 動力 - P : 氣動式 E : 電動式
Power - P : Pneumatic E : Electric
- ④. 裝置組合代號
Combination of devices

氣動式自動切線裝置 Pneumatic under bed thread trimming system

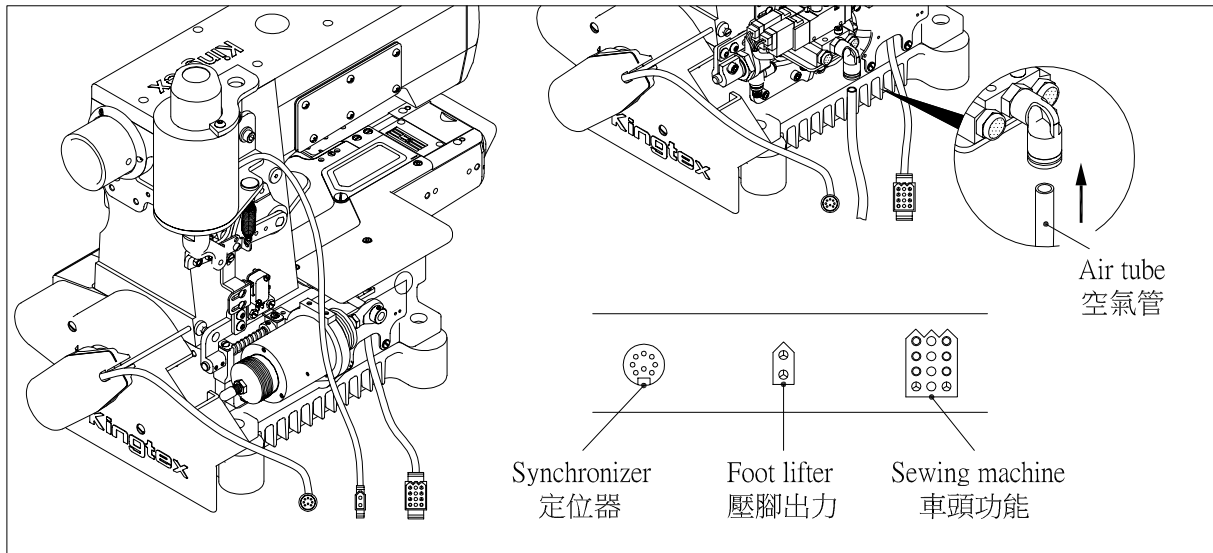
Model	(UTB06) 切底線裝置 Under bed thread trimmer	(UTB06B) 切底線裝置 Under bed thread trimmer	(UTG10) 切底線裝置 Under bed thread trimmer	(STB02) 切上飾線裝置 Top cover thread trimmer	(WPC) 撥線裝置 Wiper	壓腳提昇裝置 Presser foot lifter	備註 comment
UCP-C1	●			●		●	CT9711用 For CT9711
UCP-C2	●				●	●	
UCP-C3	●			●	●*	●	
UCP-C4	●					●	
UCP-C5			●	●		●	CT9811用 For CT9811
UCP-C6			●		●	●	
UCP-CA		●		●		●	CT9760用 For CT9760

* 包裝於附件箱中 Packed in the accessories box

1. 安裝基本線路 Wiring installation

當新機器置於車板上，且部份組件已安裝完成，如馬達、皮帶、皮帶護蓋等等，接著請依圖示，將連接器安裝至馬達的控制箱上。如機器使用的是氣動切線裝置，請將進氣空氣管安裝至換向閥接頭上。

When new machine been mounted on the table after motor, motor belt and belt cover were been installed, please follow the illustration's instruction and connect the wires on the control box of servo motor. If the machine is using pneumatic type thread trimming system, please make sure install the air pipe into elbow connector.



2. 安裝同步裝置 Installation of synchronizer

(1) 裝置針定位器 Installation of stopper

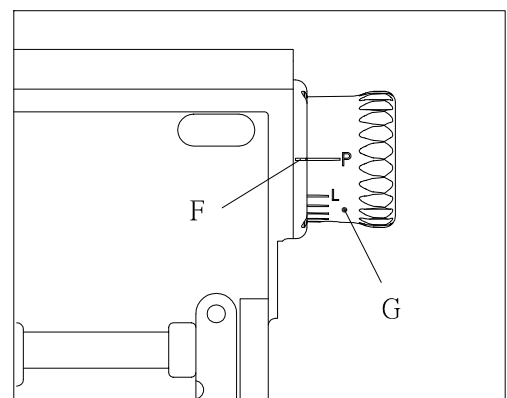
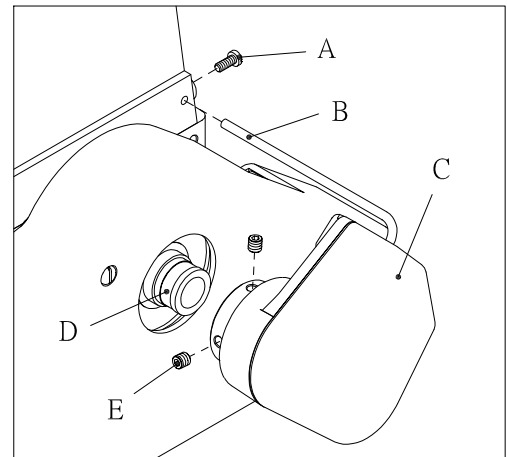
將固定支架(B)插入車頭螺絲孔內，將針定位器(C)套入皮帶輪(D)上，最後鎖緊螺絲(A)固定支架(B)。

Please insert stopper B into the screw hole on machine head and at the same time, insert synchronizer C on belt pulley D, then tighten screw A in order to fix stopper B.

(2) 調整方式 Adjustment

輕鎖螺絲(E)，向前試踩踏板使馬達運轉，停止時，手輪(G)上的P刻線需與車頭定位刻線(F)相對，調整針定位器(C)至適當角度後鎖緊螺絲(E)。

Tighten screw E lightly, then, press pedal and run motor, when motor stops, check if set mark P on hand wheel G even with the set mark F. If not, then, please adjust synchronizer C till its became even, then, tighten screw E.



△ 注意 Note

當定位刻線P尚未調整固定時，勿倒踩踏板進行切線工作，否則可能導致針斷掉或刀片受損。

During the adjustment procedure of P point, do not operate thread trimmer or it will causing needles breakage or damage the knife of the thread trimmer.

3. 調整驅動裝置 Adjustment of driving devices

3-1. 電磁鐵 Solenoid

(1) 調整行程 Adjusting driving distance

電磁鐵的行程是 15mm，調整行程需將防塵蓋(G)移除，以兩螺帽(F)做調整。

The standard solenoid driving distance is 15mm and if necessary, please remove dust cover G and adjust nuts F.

(2) 調整驅動臂位置 Adjusting the position of driving lever

驅動臂(E)在動作時的左右定點位置，可由螺絲(B)、(I)、(J)進行調整，調整時依序放鬆上述螺絲，左右移動承座(D)，使驅動臂(E)定於所需之位置，隨後固鎖螺絲(J)，並將定位環(C)與聯結塊(A)調整至適當位置，在調整驅動臂(E)過程中，需按壓電磁鐵驅動軸(H)至右死點，以確保調整後的準確度。(聯結塊調整請參閱第5節，而定位環如以下步驟說明)

The right or left moving set position of driving lever can be adjusted by adjusting screws of B、I and J, when adjusting please loosening screws in sequence move plunger D left or right in order to set the driving lever in desirous position, then tighten screw J, next adjusting collar C and plunger A into it's proper position, when adjusting driving lever, please push solenoid shaft to it's rightest position, during the adjustment process, in order to obtain it's precise movement. (Please refer to section 5 for the adjustment of connecting rod.) (Please refer to following illustration for adjusting collar.)

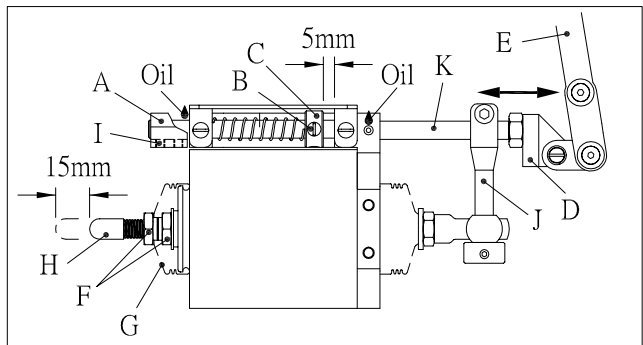
(3) 調整回復彈簧 Adjusting spring

電磁鐵在右死點時，定位環(C)與基座標準間隙為 5mm，亦可依實際狀況需求，以螺絲(B)做調整。

When solenoid shaft reached it's rightest position, the standard clearance between collar and plunger is 5mm, and also can be adjusted according to the demand by adjusting screw B.

(4) 電磁鐵在作動時，軸(K)必須可順暢的左右移動，如每一星期在軸(K)與基座接觸部位添加潤滑油，可增加移動時的順暢與基座壽命。

When the solenoid shaft is moving, shaft K must be moved swiftly, please add some lubricating oil between solenoid shaft K and plunger which can increasing it's mobility and the life of plunger.



3-2. 氣壓缸 Cylinder

(1) 調整驅動臂位置 Adjusting driving lever

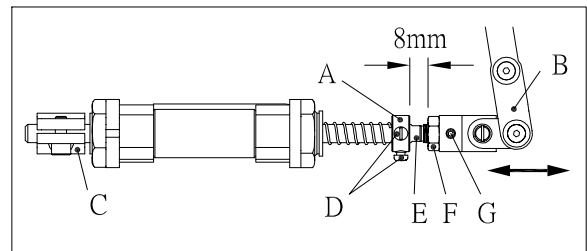
驅動臂(B)在動作時的左右定點位置，可由以下方式進行調整，首先放鬆螺絲(G)再以螺帽(F)與氣缸驅動軸(E)的平面做調整。另外定位環(A)與連結塊(C)必須配合調整，以便於以上步驟的進行。(連結塊調整請參閱第5節，而定位環如以下步驟說明)

Driving level B right and left set position during the trimming movement could be adjusted by loosening screw G and adjust the level between nut F and cylinder shaft E. In addition, collar A and connecting block C will also have to be adjusted at the same time in order to make proper adjustment. (Please refer to section 5 for connecting block adjustment and please see following procedures for collar adjustment.)

(2) 調整回復彈簧 Adjusting spring

氣壓缸於右死點時，定位環(A)與螺帽(F)標準間隙為 8mm，也可依實際狀況需求，以螺絲(D)做調整。

When cylinder shaft reached its most right position, the standard tolerance should be 8mm between collar A and nut F, it also can be adjusted by screw D according to the actual sewing situation needed.



4. 與下切線機構有關的各項調整

The adjustment for under bed thread trimmer mechanism

4-1. 調整前說明 Illustration before conducting adjustment

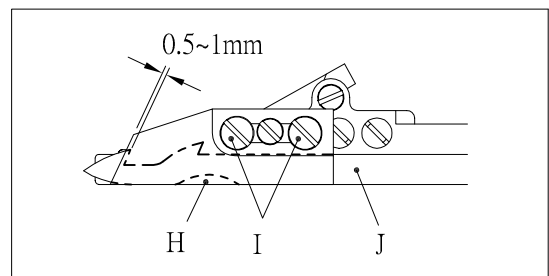
在調整或測試切刀組左右的相關位置時，應先轉動手輪使刻線P對正車頭上的定位刻記後(圖形請參閱第2節)，才可以手引動切刀驅動之氣壓缸及電磁鐵的活塞，使切刀組左右擺動。當調整或測試完成後，請務必確認切刀組是置於最右側的，以便後續步驟的進行。(圖形請參閱第4-8節)

When adjusting or testing the right / left movement of trimming knife, the P set mark of hand wheel must be set even with the set mark on machine head. (Please refer to the diagram on section 2 prior.) Then, swing trimming knife back and forth by moving the cylinder shaft or solenoid shaft after adjustment or testing, please make sure trimming knife set is at its most right position in order to make further adjustments. (Please refer to the diagram on section 4-8 prior.)

4-2. 活動刀與固定刀片位置 Adjusting the position between movable knife and fixed knife

切刀組退到定位時，固定刀片(H)與活動刀(J)兩刀口需有 0.5~1mm 的間距咬合，而間距可由螺絲(I)做調整。

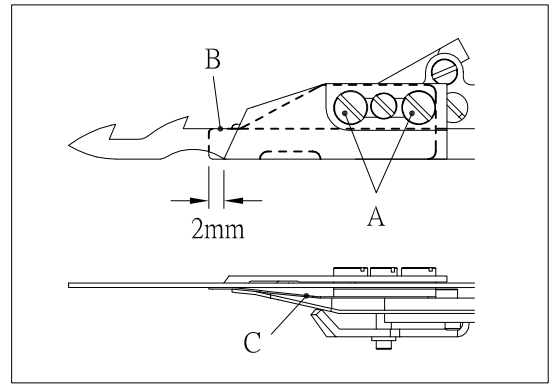
When trimming knife moves to its set position, there should have 0.5~1mm overlap between fixed knife H and hook blade of movable knife J, and this overlap can be adjusted by screw I.



4-3. 夾線簧片調整 Adjustment of clamp spring

簧片(C)位置一般為凸出刀口前緣 2 mm，以螺絲(A)做調整，如凸出量太多則線頭太長，少則反之。此外簧片必須與活動刀邊緣(B)方向對齊，以防針線夾線。

Clamp spring C should be positioned 2mm in front of the front edge of fixed knife and can be adjusted by screw A. If positioned too much ahead then the thread end will be too long and vice versa, will be too short. In addition, clamp spring must be even with the side edge B of movable knife to prevent from holding the needle threads.



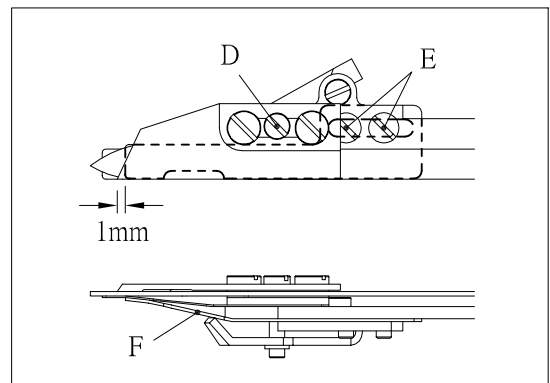
4-4. 活動刀片簧壓調整 Adjusting knife pressure spring

活動刀片簧壓(F)的前端，設定在固定刀片後方 1mm 處，而間距可由螺絲(E)做調整。

針線底線是否乾淨俐落的被切斷？底線能否被來持？可調整簧壓，以螺絲(D)來改變，依順時針轉，則簧壓線切會更加俐落，但刀片的磨耗相對增力，且底線不易脫落，造成線頭太長。反時針轉則反之。

The knife pressure spring F should be positioned 1mm behind the front edge of fixed knife and it can be adjusted by screw E.

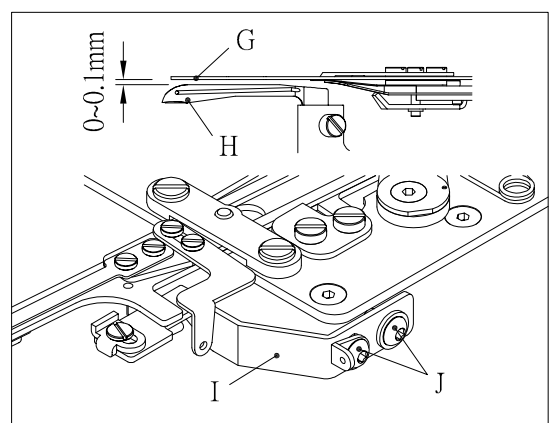
Can needle thread and looper thread be clean cut ? and can looper thread can be held ? All can be done by adjusting the screw D, clock-wise turning the thread can be cut cleanly but the fixed knife will be worn out faster and the thread end will be longer since looper thread was been holding too tight, vice versa for counter-clockwise turning.



4-5. CT9000 下刀托架調整 Adjusting of lower knife carrier guide for CT9000

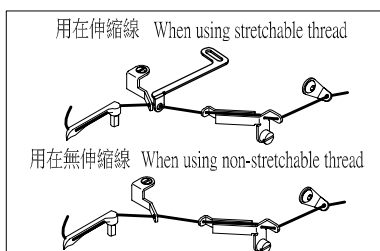
活動刀(G)伸出時與下結線鉤(H)的間隙為 0~0.1mm 之間，可放鬆螺絲(J)。調整下刀托架(I)，上下調整至適當位置，鎖緊固定螺絲(J)前，必須確認下刀是否能很順暢前後運動。

When movable knife G moving forward, there should have 0~0.1mm tolerance between movable knife and looper H. Adjustment can be made by loosen screw J and adjust lower knife carrier guide I upward or downward to its proper position, then tighten screw J. After such adjustment, please make sure movable knife can be moved forward backward smoothly.

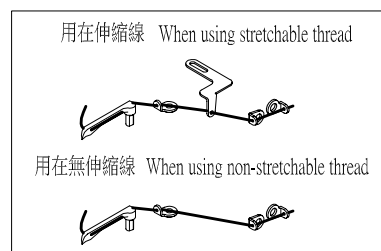


4-6. CT90/CT96 穿線 Threading for CT90/CT96

CT9000



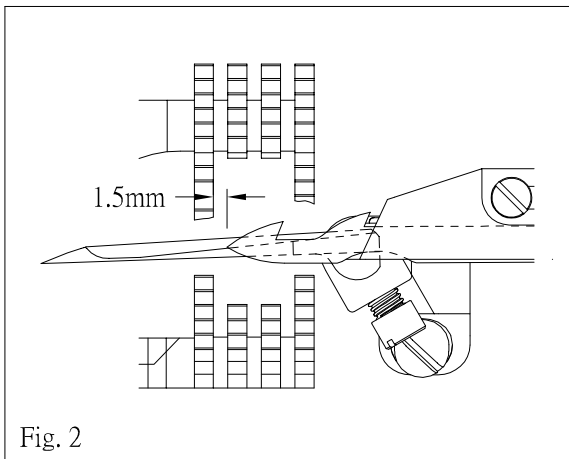
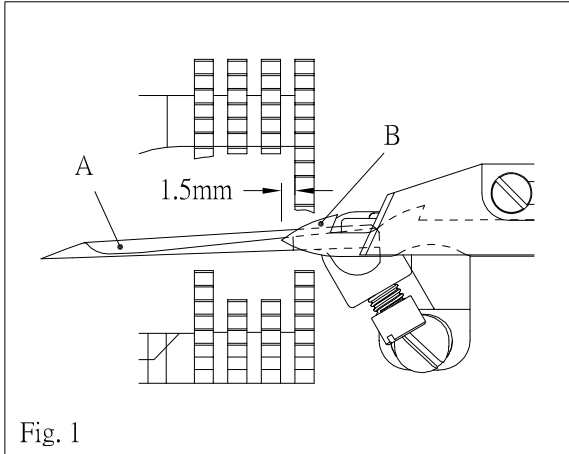
CT9611



4-7. 活動刀片行徑位置調整 Adjusting moving route position of movable knife

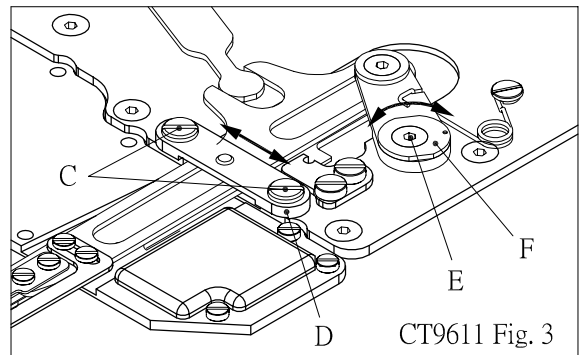
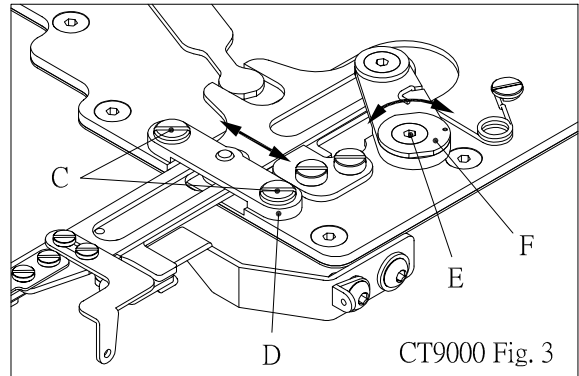
當活動刀片(B)行進到右排送布齒的左側緣 1.5 mm，其刀尖必須位於結線鉤(A)背脊的中心線上，當活動刀片(B)繼續向左前進到左排送布齒的右側緣 1.5mm 時，其刀尖還必須在結線鉤(A)背脊的範圍裡。(圖 1、2)

調整時放鬆固定螺絲(E)，旋轉偏心樞梢(F)，或以螺絲(C)調整固定座(D)位置，來改變活動刀片的行徑路線。(圖 3)



When movable knife B moves over 1.5mm from the left edge of most right row of feed dogs, its knife tip should be positioned on the center top of looper ridge A. When movable knife B keep moving to 1.5mm away from the right edge of lested row of feed dog, its knife tip should be still within on the top of looper ridge A. (Please refer to diagram 1 and 2.)

While the adjustment loosen screw E, turn adjusting ring F or loosen screw C, then adjust the position of bracket holder D in order to change the moving route of movable knife (See diagram 3)



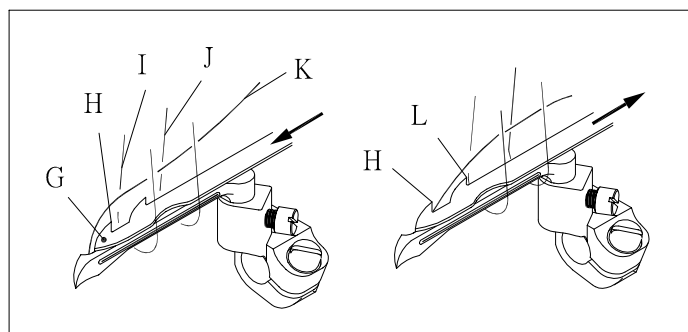
4-8. 針線、結線鉤及活動刀之間的關係 Co-relationship among needle thread looper and movable knife

活動刀片(G)由右方左前進時必須從針線的線環(I)、(J)穿過，同時活動刀片前段的鉤刀(H)必須在結線鉤線(K)的前面。

活動刀片由左死點向右退回時，鉤刀(H)、(L)鉤住針線及結線鉤線拉向固定刀片，隨後依次被切斷。

When movable knife G moves from left to the right, it must go thru the needle thread loops I、J, at the same time, the front hook blade H of movable knife must be in front of looper thread K.

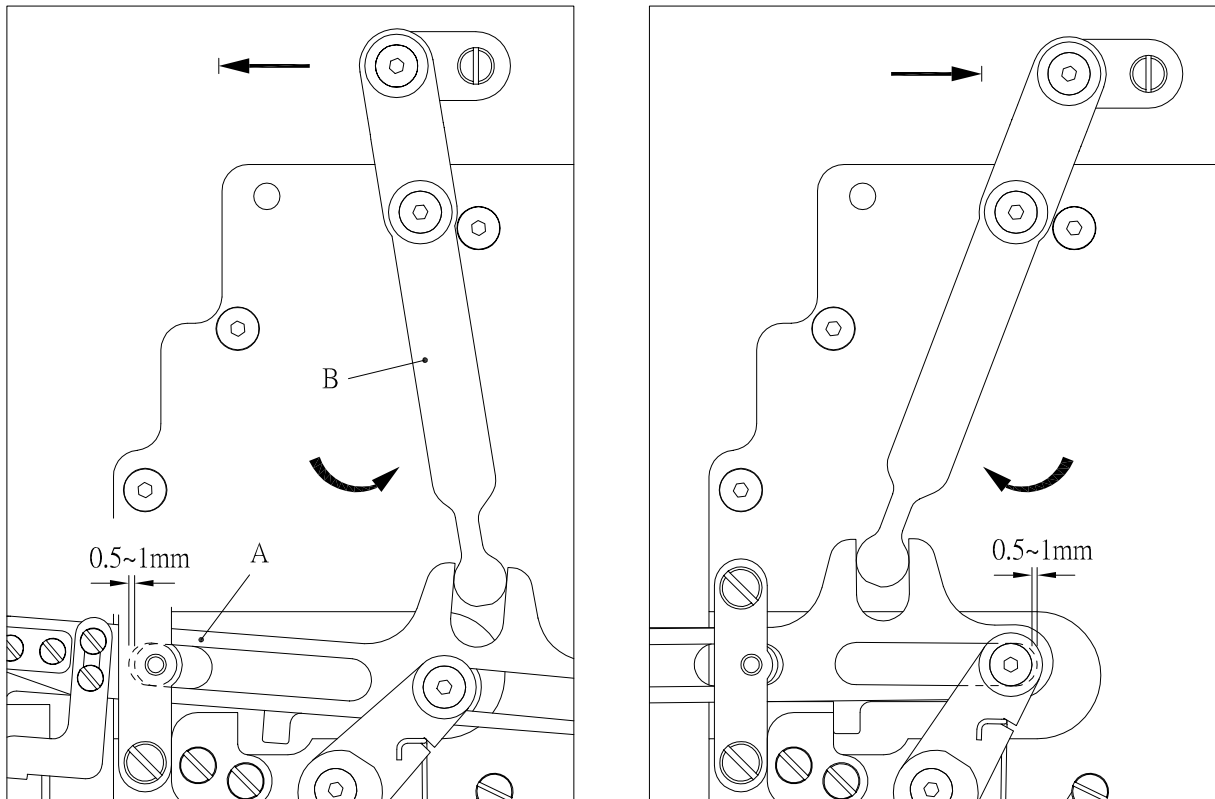
When movable knife moves from its leftest position to its right, hook blade H、L should hold needle threads and looper thread and pull it to the fixed knife then cut it sequentially.



4-9. 下切刀前後位置調整 Adjusting the front and rear position of underbed thread trimmer

當刀組退至右死點時，活動刀座(A)與隔環之間需有0.5~1.0 mm 的間隙。而活動刀座(A)動作至左死點時，活動刀座(A)與隔環也需有0.5~1.0 mm 的間隙，兩者可由改變驅動臂(B)位置來調整間隙。(有關調整驅動臂位置的詳細說明，請參閱第3節)。

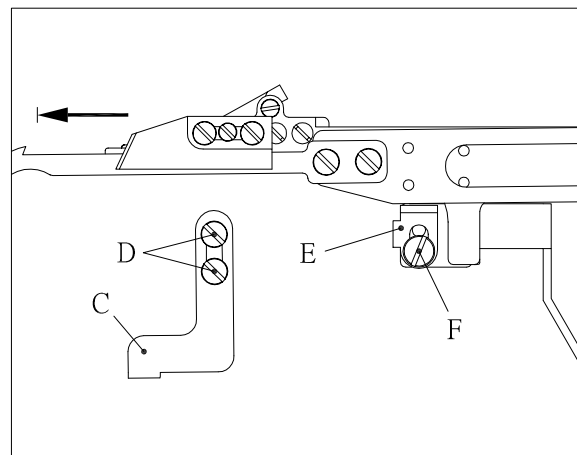
When under bed thread trimmer set went back to its most right set position, there should have 0.5~1.0mm tolerance between lower knife carrier A and spacer, when lower knife carrier A moves to its leftest set position, there also should have 0.5~1.0mm tolerance between lower knife carrier and spacer. Then tolerance between lower knife carrier and spacer can be adjusted by changing the position of driving lever B. (Pleaes refer to section 3 for the adjustment of driving lever.)



4-10. CT9000 輔助定位塊調整 Adjusting auxiliary knock block for CT9000

為了方便作業，首先以螺絲(D)將導線(C)卸下，而活動刀座在最左死點時，與下刀輔助定位塊(E)之間間隙為0~0.2 mm，其間隙可以螺絲(F)做調整。完成後需檢視第4-6節步驟，運作必須順暢，最後再將導線(C)裝回。

For easy adjustment, please take off thread guide eyelet C by loosening screw D, when the movable knife reached its leftest set position, there should have the tolerance of 0~0.2mm between movable knife and knock block E. Adjustment can be made by adjusting screw F. After the adjustment, please repeat the adjustment of moving route of movable knife as shown on section 4-6 and make sure movable knife moves smoothly, then, mounting thread guide eyelet C back.



5. 調整縫線張力之相關裝置 Adjusting thread tension components

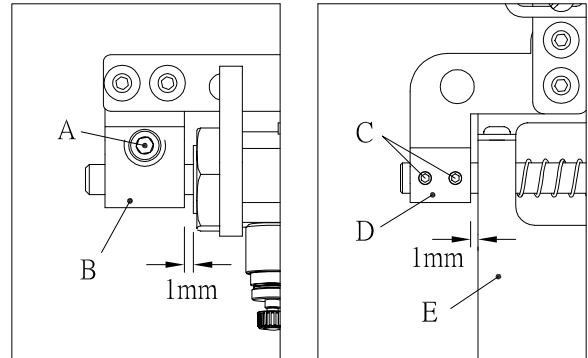
(1) 切線連結塊調整 Adjustment of bracket holder

當下刀退回右死點時，切線連結塊(B)與氣壓缸須有 1mm 的預留間隙。如使用的是電磁鐵，切線連結塊(D)與承座(E)也須有 1mm 的預留間隙，兩者分別以螺絲(A)、(C)做調整。

當切線連結塊有所變動時，請務必再次確認以下步驟及安全開關之相關位置。(有關安全開關的詳細說明，請參閱第6節)

When underbed thread trimmer reach its most right position, there should have 1mm tolerance between bracket holder B and cylinder when using pneumatic type thread trimming knife. If using electric type thread trimming knife, there also should have 1mm tolerance between plunger D and bracket E, and can be adjusted by screw A or C respectively.

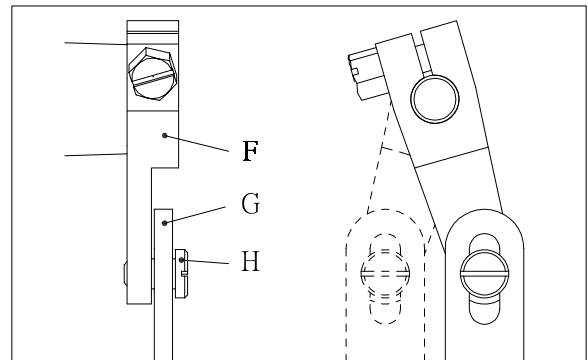
When any changes in bracket holder or plunger, please make sure to repeat following steps and safety switch's related position. (Please refer section 6 on page 10 for the adjustment of safety switch.)



(2) 連結板調整 Adjusting of connecting plate

當調整上述之連結塊時，需注意連結板(G)與曲柄(F)、螺樁(H)間間隙要相等。這樣曲柄與連桿的運動才能順暢。

When adjust connecting plate, please pay attention to the even tolerance among connecting plate G, tension release lever F and stud H, in order to make smooth movement between connecting plate and tension release lever.



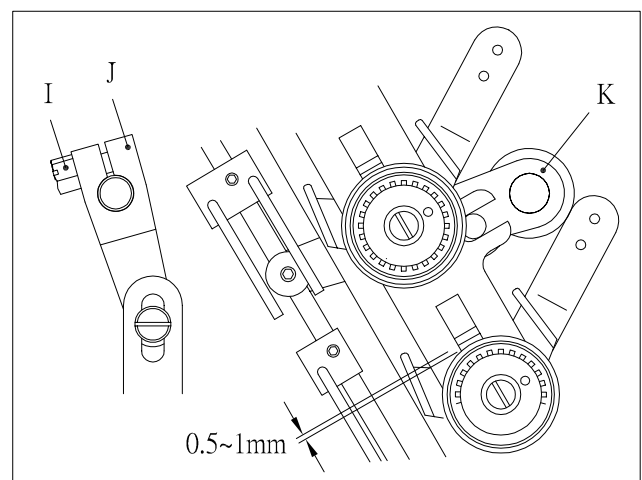
(3) 鬆線滑板與張力控制盤的間隙調整 Adjusting of the tolerance between release wedge and tension disc

鬆線滑板與張力控制盤在未動作時，其相對位置有 0.5~1mm 間隙。調整時，首先放鬆曲柄(J)上的螺絲(I)，再擺動曲軸(K)調整至適當的間隙。

在調整曲柄(J)或曲軸(K)時，應注意兩者與車頭之接觸面不可有任何間隙，且能夠很順利旋轉，否則會影響下切刀的運動。

There should have the tolerance of 0.5~1mm between release wedge and tension disc before any movement when adjusting, loosen screw I on tension release lever J, then adjust tension release shaft K to its proper position in order to obtain tolerance 0.5~1mm.

When adjusting tension release lever J or tension release shaft K, please make sure both of them should touch machine head closely, without any tolerance and moving smoothly. Otherwise it will affect the movement of under bed thread trimmer.



(4) 鬆線裝置調整 Adjusting of thread tension release components

調整鬆線導桿(A)的位置，在未動作時，導桿(A)凸出導線(B)約28mm。調整時，放鬆固定螺絲(G)調整。

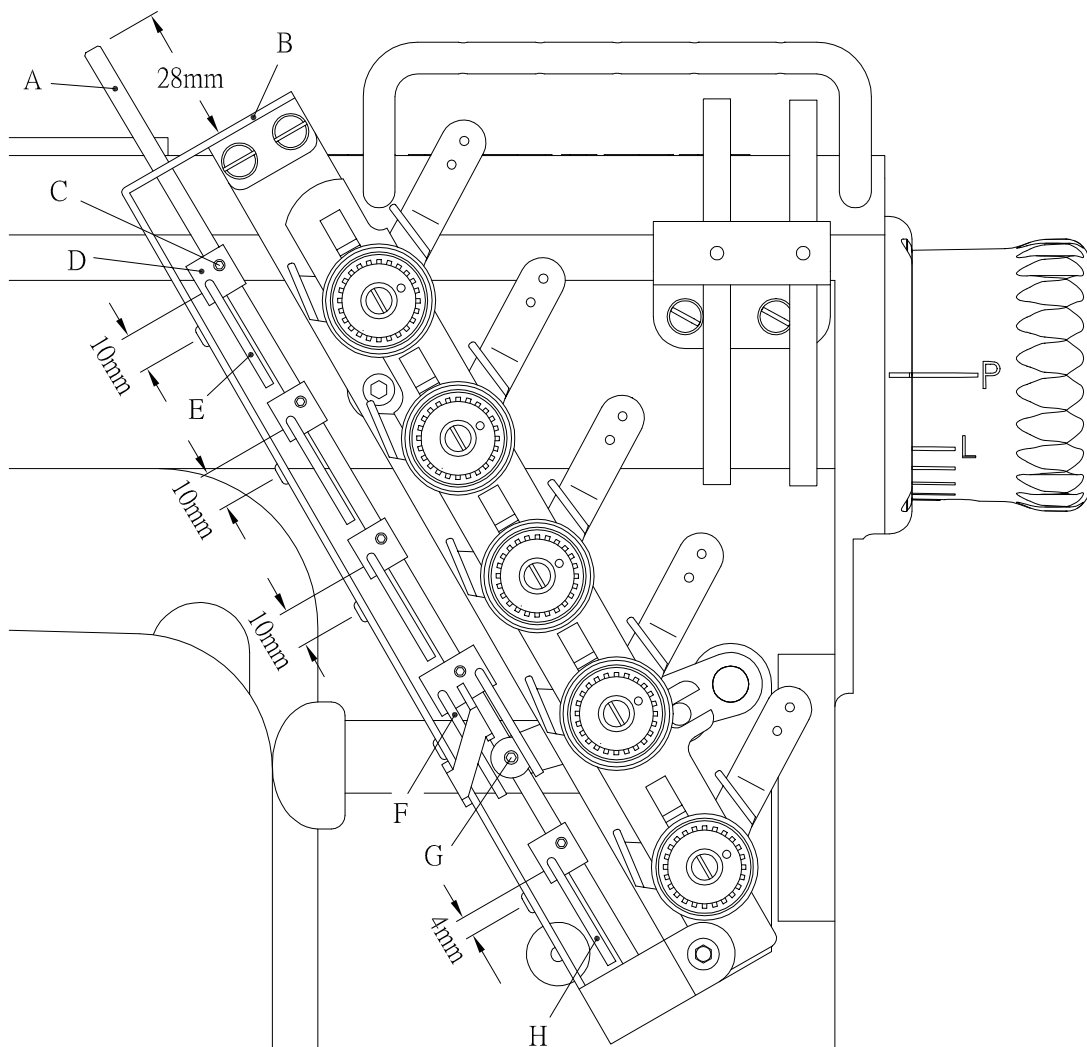
鬆線鉤位置與調整

針線鬆線鉤(E)與線孔距離為 10mm，底線鬆線鉤(H)與線孔距離為 4mm，裝飾縫鬆線鉤(F)則是以不改變針線及底線的線跡來做調整。調整時，放鬆螺絲(C)移動鬆線座(D)。

When adjust the position of guide bar A, prior to any actions, the tip of guide bar should be 28mm ahead of thread guide eyelet B, when adjusting, loosen set screw G in order to adjust.

The position and adjusting of needle thread release bar :

There should have 10mm distance between needle thread bar E and needle thread guide hole, and should have 4mm distance between looper thread bar H and thread guide hole and under the circumstance or without changing the stitches of needle thread any looper thread, adjusting spreader thread bar F by loosen screw C and moving upward or downward of thread pull-off block D.



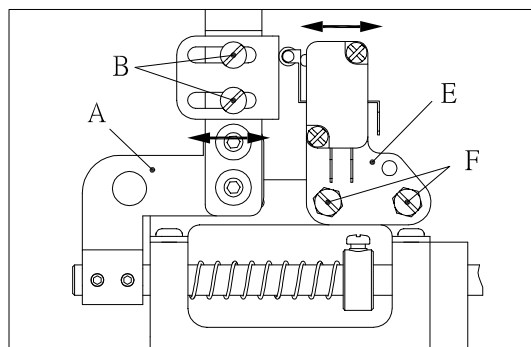
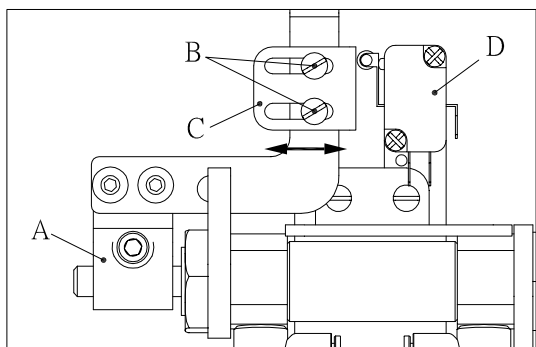
6. 調整安全開關位置 Adjusting the position of safety switch

調整過切刀或移動切線連結塊(A)時，則安全開關(D)就必須調整。

調整時放鬆螺絲(B)，左右移動支架(C)。當下切刀回到右死點停頓時，安全開關(D)上的按鈕剛好按下。如驅動切刀的裝置是電磁鐵，則是有另一支架(E)相互配合，分別以螺絲(B)、(F)做調整。

Whenever adjusting thread trimmer or bracket holder A must adjust safety switch D at the same time.

When adjusting, loosen screw B, moving knife holder bracket C to its proper position when underbed thread trimmer moves to its most right position and stop then the push button on safety switch D should touch knife holder bracket. If is using electrical type thread trimmer, (using solenoid), there will have another knife holder bracket E in addition to knife holder bracket C and both knife holder bracket C and E and can be adjusted by screw B and F respectively.



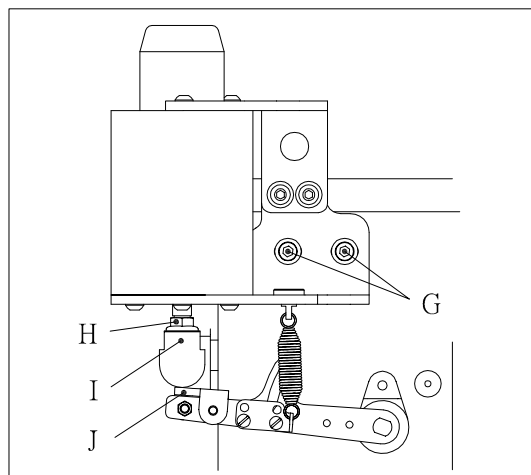
7. 壓腳提昇裝置 Presser foot lifting device

7-1. 電動式壓腳提升裝置

Electrical type presser foot lifting device

壓腳提昇量可調整至 7mm，調整時以套管(I)平面固定，放鬆螺帽(H)，接著旋轉套管(I)上下做調整，此外套管(I)必須與輔助板(J)平面接觸，而左右的位置與提昇量也有直接的關係，其中可以螺絲(G)配合做調整。

Presser foot lifting height is 7mm, when adjusting, holding clutch sleeve I and loosen screw H, turning clutch sleeve I clock-wise or counter-clock wise in order to adjust the stroke distance, besides, clutch sleeve I should touch parallel with supplementary plate J. In addition, the left or right position of bracket also will affect the lifting height and bracket can be adjusted by screw G.

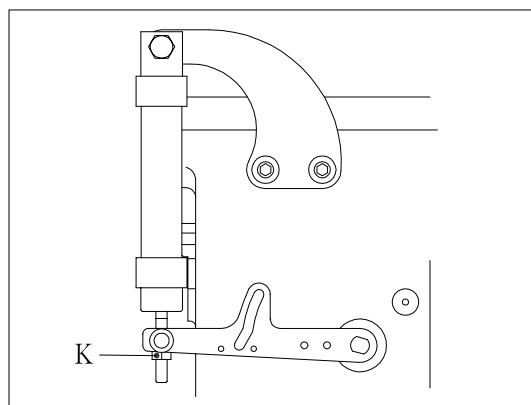


7-2. 氣動式壓腳提升裝置

Pneumatic type presser foot lifting device

調整時放鬆螺帽(K)，旋轉氣壓缸軸心上下做調整。

When adjusting, loosen unt K, turning cylinder shaft upward or downward in order to adjust the lifting height.

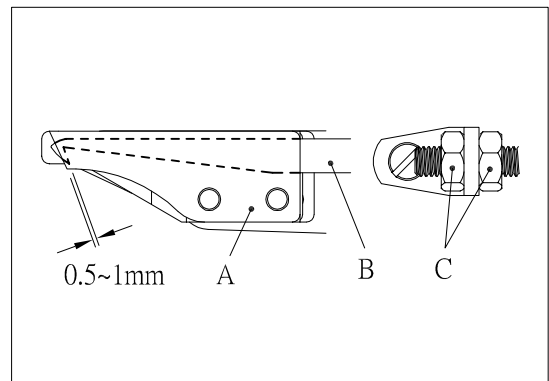


8. 調整上飾線切線裝置 Adjusting of spreader thread trimmer device

8-1. 活動刀與固定刀片位置 The position of movable knife any fixed knife

活動刀片(B)至上死點時，與固定刀片(A)之間需有 0.5~1 mm 的間距咬合，而間距可由螺絲(C)做調整。

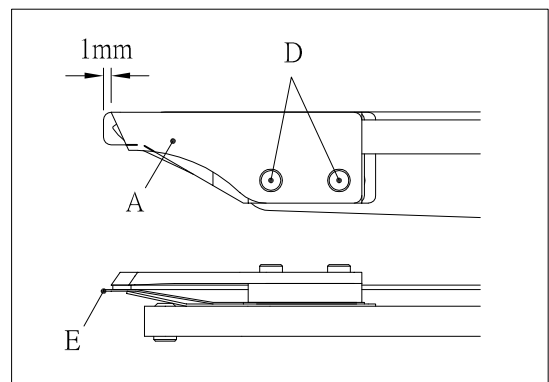
When movable knife B moves to its most upper position, there should have overlapping of 0.5~1mm between movable knife B and fixed knife A and overlapping can be adjusted by screw C.



8-2. 夾線簧片調整 Adjusting of thread clamp spring

簧片(E)位置一般為凸出刀口前緣 1 mm，以螺絲(D)做調整，並且與固定刀(A)邊緣方向對齊。

The position of thread clamp spring E should be 1mm ahead the front edge or fixed knife A, and can be adjusted by screw D and also should be even with the right edge of fixed knife A.



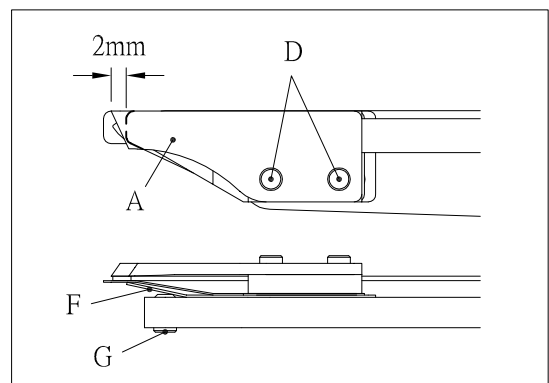
8-3. 活動刀片簧壓調整 Adjusting of knife pressure spring

活動刀片簧壓(F)的前端，設定在固定刀片(A)後方 2mm 處，而間距可由螺絲(D)做調整。

裝飾線是否乾淨俐落的被切斷？裝飾線能否被夾持？可調整簧壓，以螺絲(G)來改變，依順時針轉，則簧壓線切會更加俐落，但刀片的磨耗相對增力，且裝飾線不易脫落。反時針轉則反之。

The front edge of knife pressure spring F should located 2mm behind the front edge of fixed knife A and can be adjusted by screw D.

Can top coverstitches be cut clean? spreader thread can be held? All can be done by adjusting screw G in order to change spring pressure, turning clock-wise, will increase spring pressure and thread can be cut clean and spreader thread can be held tight, however, it will wearing out the fixed knife and movable knife faster, vice versa for turning counter-clock wise.



8-4. 活動刀片行徑位置調整 Adjusting the position of moving route for movable knife

(1) 旋轉手輪使P刻線至車頭定位刻線，以保調整時的正確性。(手輪圖形見第2頁)

Turning hand wheel and make sure the P set mark on hand wheel even with the set mark on machine head in order to make the correct adjustment later on. (Please refer to figure on the first page 2.)

- (2) 以手驅動使活動刀片向下行進，當與上結線鉤(H)交會時，其活動刀鉤刃尖(F)與結線鉤上的掛線鉤(G)須對正，並且兩者之間需有 0.5mm 的間隙。而相關位置可由螺絲(A)、(E)做調整，當0.5mm的間距確定後，可由螺絲(B)調整，移動定位片(C)至螺樁定位，以便往後做調整的依據。(圖 1、2)

Using hand to move movable knife downward, by the time when movable knife meets spreader H, the tip of movable knife F should be even with the hook blade of spreader G and there should have a tolerance of 0.5mm between them, and it can be adjusted by adjusting screw A and E. When 0.5mm tolerance been set, please move knock block C to stud A by adjusting screw B in order to set the foundation for the future adjustments. (Please refer to figure 1 and 2.)

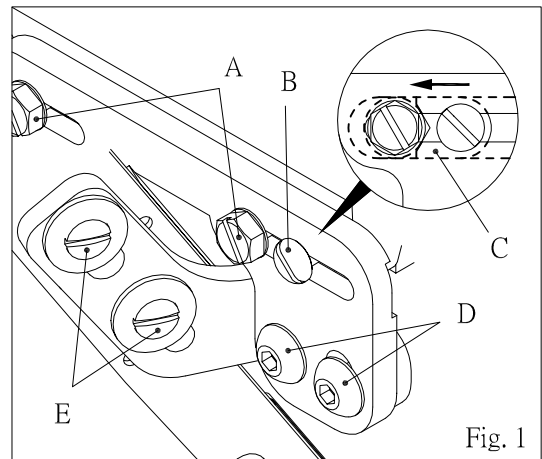


Fig. 1

- (3) 活動刀行經結線鉤後，接著將與上飾線(J)碰觸，而上飾線(J)必需在刀片前端斜面(I)範圍內，以便後續滑入刀槽。而活動刀的左右角度可由螺絲(E)做調整，另外活動刀前後的角度，會因裁片的厚薄，而需跟著改變，車越厚則切刀需越傾斜，角度可由螺絲(D)依需求做調整，一般於長孔置中鎖上即可。調整後必須檢視上述各步驟。(圖 1、3)

After movable knife passed thru spreader, it will touch spreader thread J (Top covering thread) and spreader thread should be located within the slant angle range I of the front of movable knife, so it will falling into the hook blade of movable knife. The right or left angle of the movable knife can be adjusted by screw E, in addition, the front and rear position of movable knife will be varied, depends on the thickness of sewing fabrics, the thicker sewing fabrics, the more slant of movable knife and can be adjusted by screw D, normally, movable knife will be tighten in the middle of long screw hole and must go over all the above mentioned steps after adjustment. (Please refer to figure 1 and 3.)

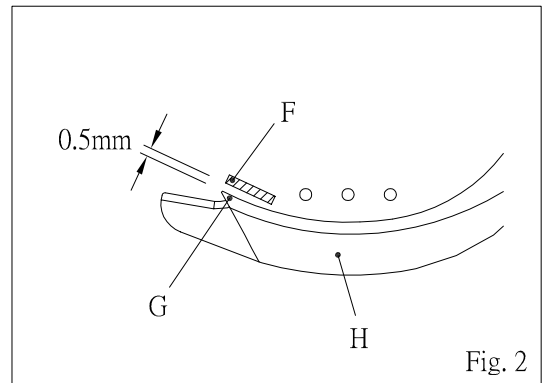


Fig. 2

- (4) 活動刀行進至下死點時，裝飾線也已滑入刀槽範圍，活動刀尖(L)與針板面(K)之間，一般約有 5.5~6.5mm 的間距，而此間距可由螺絲(E)做調整。調整後必須檢視上述各步驟。(圖 1、4)

When movable knife moves to its lowest point, spreader thread fallen into the hook blade of movable knife, there should have the tolerance of 5.5~6.5mm between the tip L and needle plate surface K, and this tolerance can be adjusted by screw E and must go over all previous adjusting steps after such adjustment. (Please refer to figure 1 and 4.)

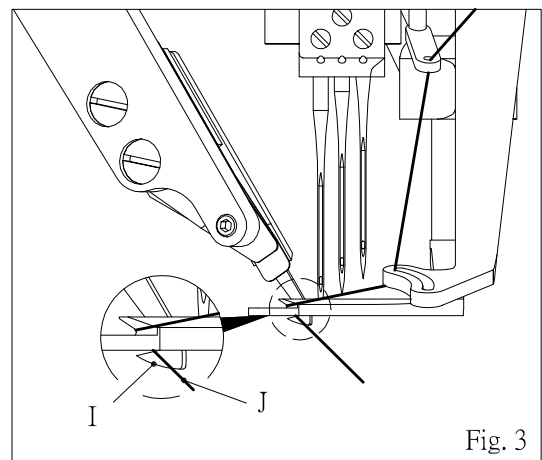


Fig. 3

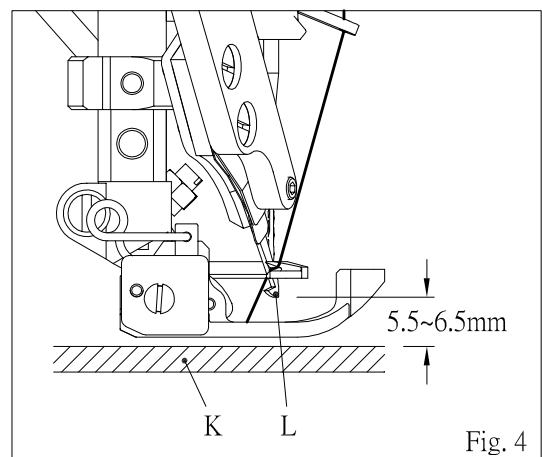


Fig. 4

9. 調整吹線裝置 Adjusting of air wiper

- (1) 放鬆調整螺絲(B)，移動支架使吹氣管(F)在針後約 1mm 位置。

Loosen screw B, moves bracket in order to make blow tube F located 1mm behind the needles.

- (2) 放鬆調整螺絲(E)，旋轉吹氣管(F)，調整吹氣角度與三針孔為同一斜度。

Loosen screw E, turn blow tube F and make sure the blowing angle is at the same angle as three needle holes.

- (3) 放鬆調整螺絲(D)，調整吹氣管(F)與針留須有1.5mm 的間隙。

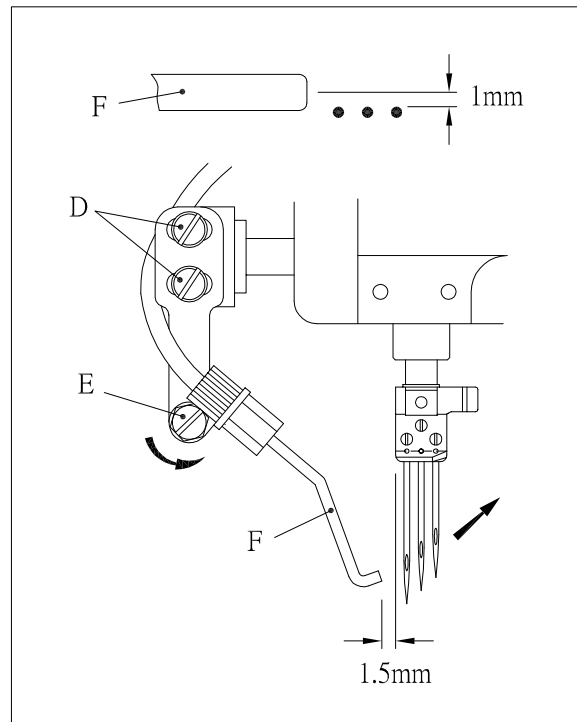
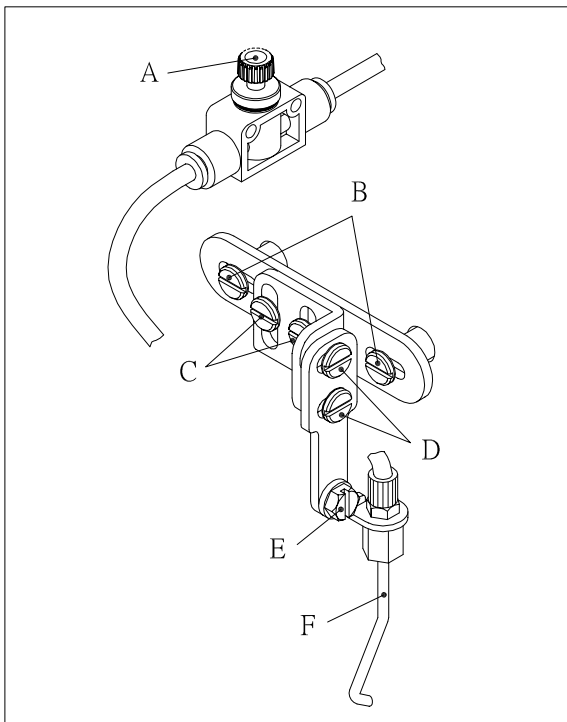
Loosen screw D, adjust blow tube F and make sure there have the tolerance of 1.5mm between blow tube and needle clamp.

- (4) 放鬆調整螺絲(C)，調整吹氣管(F)高低，使吹氣管的位置與三針孔為同一線上。

Loosen screw C, and adjust the height of blow tube F and make sure the blow tube should be positioned at the same slant line of 3 needle holes.

- (5) 由調節旋鈕(A)調整吹氣量，要減少吹氣流量時，向順時針旋轉，要增加則向逆時針旋轉。

Air volume can be adjusted by turning knot A on speed controller, tuning clock-wise in order to reduce the air volume, turning counter-clock wise in order to increase the air volume.



10. 調整撥線裝置 Adjusting electrical wiper device

- (1) 旋轉手輪使P刻線至車頭定位刻線，使針定位於上死點，以保調整時的正確性。(手輪圖形見第2頁)

Turn hand wheel and make sure the (P) set mark even with the set mark on the machine head in order to make sure the correct position for future adjustments. (Please refer to figure on the first page 2.)

- (2) 調整抓線鉤(H)上死點位置，首先放鬆螺絲(A)，以手擺動驅動臂(B)，使連桿(G)與支架(F)成水平，或依實際需求調整，過程中限動塊(C)須配合定位，最後鎖緊螺絲(A)，調整後連桿(G)與支架邊緣(E)需留有間隙，針留(D)與抓線鉤(H)之間亦是，以避免產生碰撞。(圖1)

Adjusting hook blade (H) to its uppest position, by loosening screw (A), set arm (G) parallel with solenoid support (F) by adjusting driving lever (B) and stop block (C), then, tighten screw (A), after such adjustments, please make sure there should have a tolerance between arm (G) and the edge (E) of solenoid support (F), also there should have a tolerance between needle clamp (D) and hook blade (H) in order to avoid any collision among the parts. (Please refer to figure 1.)

- (3) 調整抓線鉤(H)下死點位置，放鬆螺絲(K)、(I)，擺動驅動臂(B)使抓線鉤(H)與左針中心，左右需有3~5mm的間距，而限動塊(J)須配合定位，接著先後鎖緊螺絲(I)、(K)即可。(圖2)

Adjusting hook blade (H) lowest position, by loosening screw (K) and (I), setting hook blade (H) passed over 3~5mm from the center of leftest needle, by moving driving lever (B) and stop block (J), then, tighten screw (I) and (K). (Please refer to figure 2.)

- (4) 當抓線鉤(H)至下死點，鉤尖行經左針(N)中心時，兩者上下間距，需有0.5mm，而間距可由螺絲(L)做調整，此外亦可以螺絲(M)作微調，完成後需再檢視第三和第五步驟。(圖3)

There should have 0.5mm tolerance when hook blade (H) passing thru the center of leftest needle (N) to its lowest position, this tolerance can be obtained by adjusting screw (L) and also can be micro-adjusted by screw (M) and after finished the adjustments, need to double check step (3) and step (5). (Please refer to figure 3.)

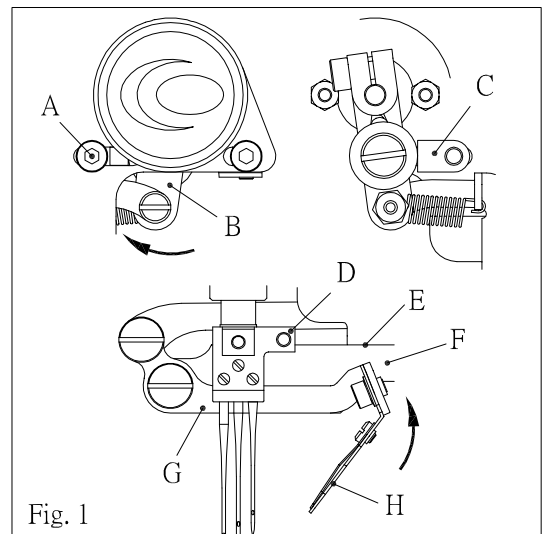


Fig. 1

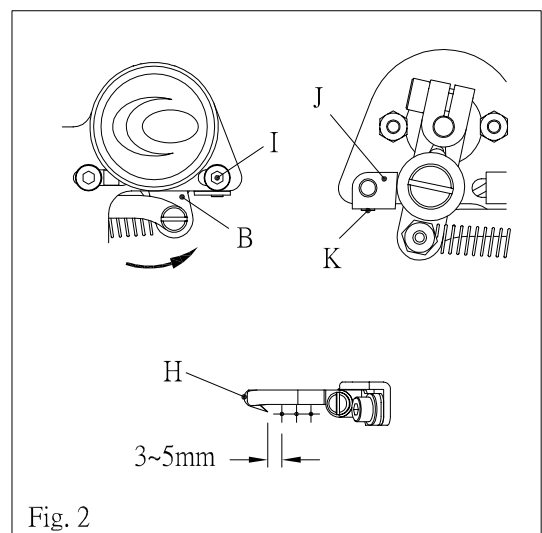


Fig. 2

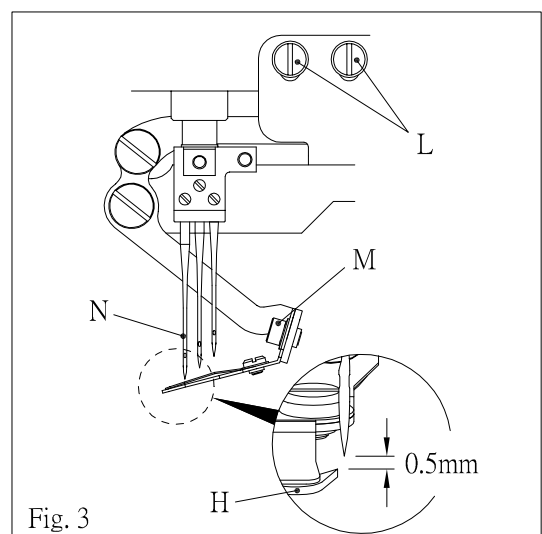


Fig. 3

- (5) 當抓線鉤(H)至下死點，鉤尖行經左針(N)中心時，兩者前後需有0.5mm間距，而間距可由螺絲(M)做調整，完成後需再檢視第三和第四步驟。(圖4)

There should have a tolerance of 0.5mm between hook blade (H) tip and center of leftest needle (N) by the time when hook blade (H) moving thru needles and reaching to its lowest position and the adjustment of such tolerance can be obtained by adjusting screw (M), after such adjustments, will need to double check step (3) and step (4) again. (Please refer to figure 4.)

- (6) 調整回復彈簧(O)，使抓線鉤(H)能順利退至上死點，可依現況以螺絲(P)做調整，移動支架(Q)，朝向長孔左側移動拉回力量較大，朝向右側移動則反之，一般置於最右側即可。(圖5)

Adjust spring (O) in order to let hook blade (H) can be retreated to its uppest position, please loosen screw (P), move bracket (Q) to the left or right if moves to the left side of long hole, then it will increase the pulling force vice versa, if move to the right side of long hole, usually, bracket (Q) will be set at right side of the long hole. (Please refer to figure 5.)

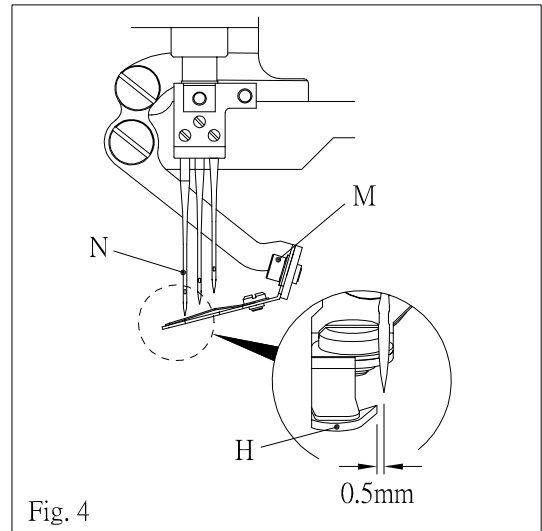


Fig. 4

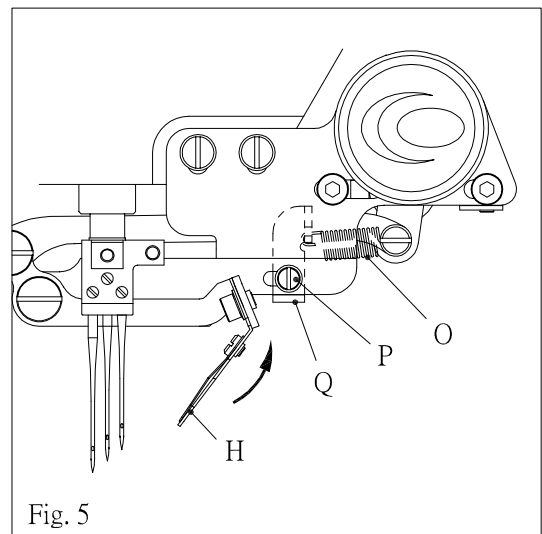
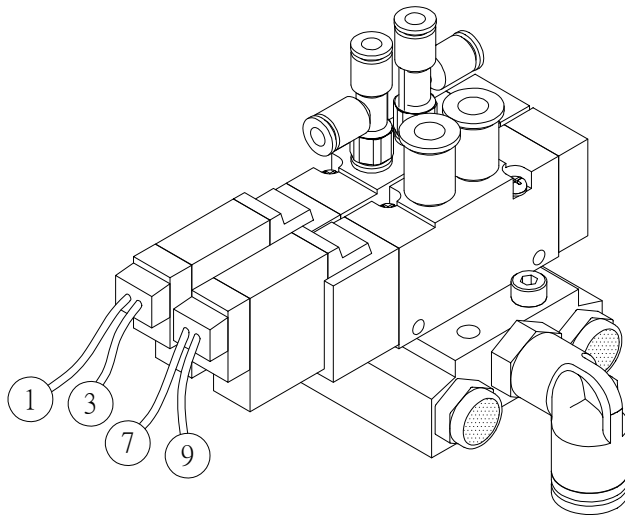
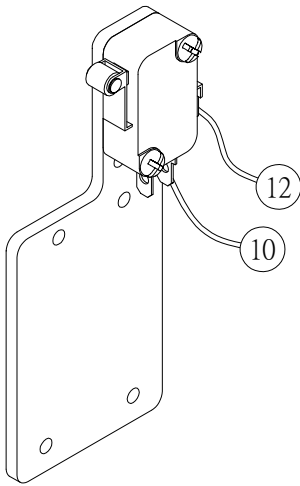


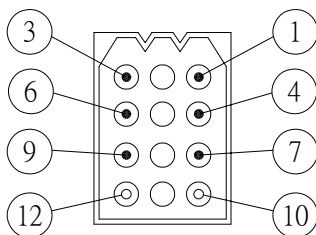
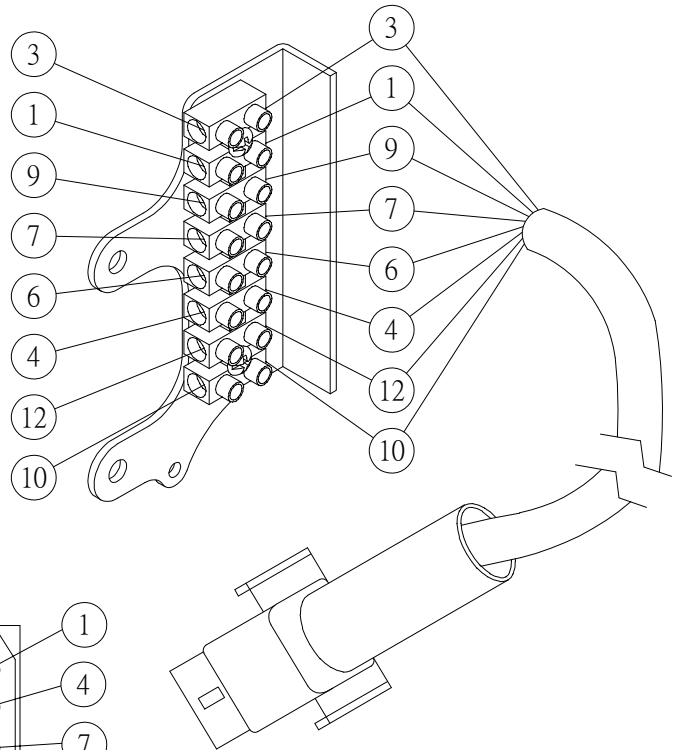
Fig. 5

11. 換向閥配線圖 Wiring of electromagnetic valve

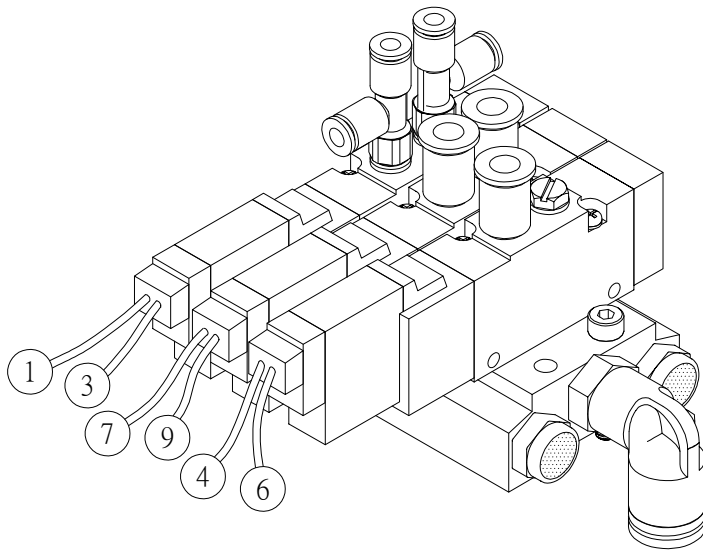
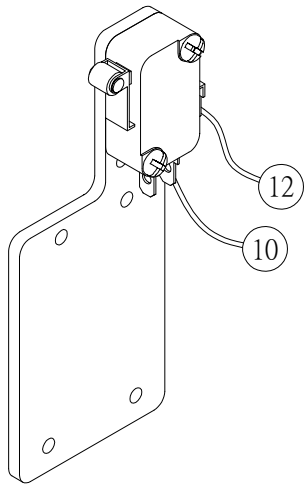
11-1. UTB2 / UTB4 氣動式 UTB2 / UTB4 For pneumatic type



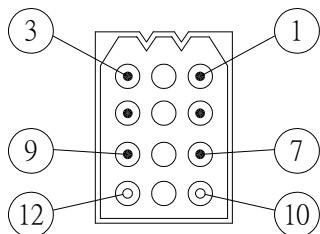
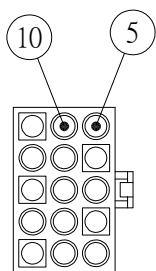
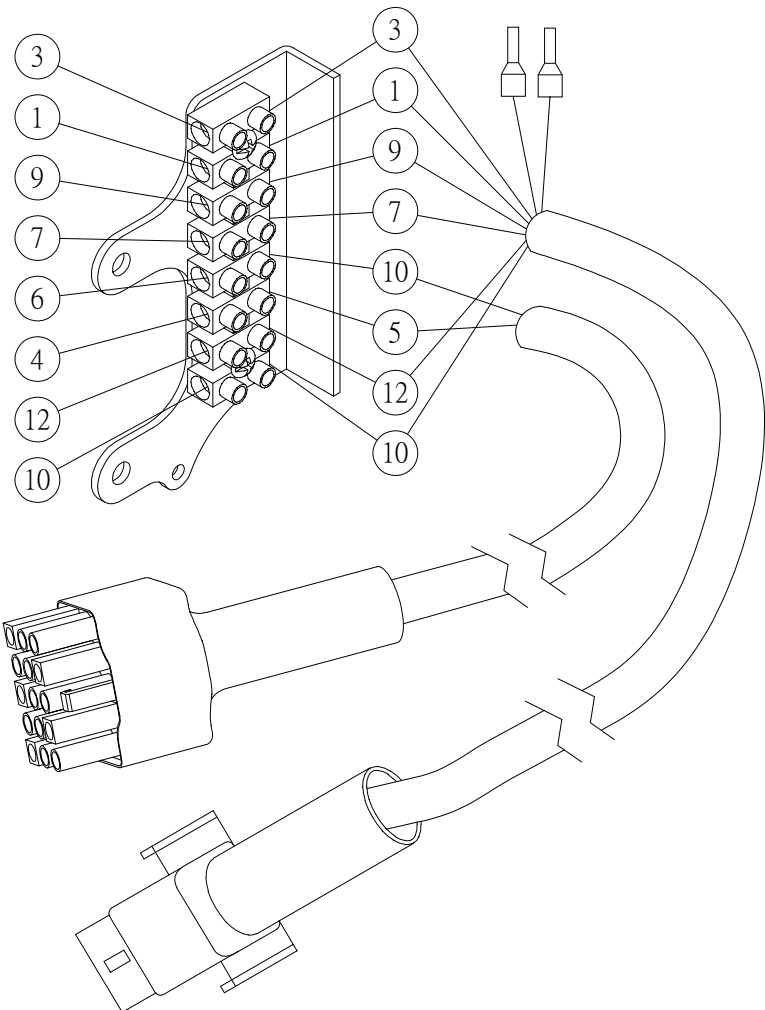
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.



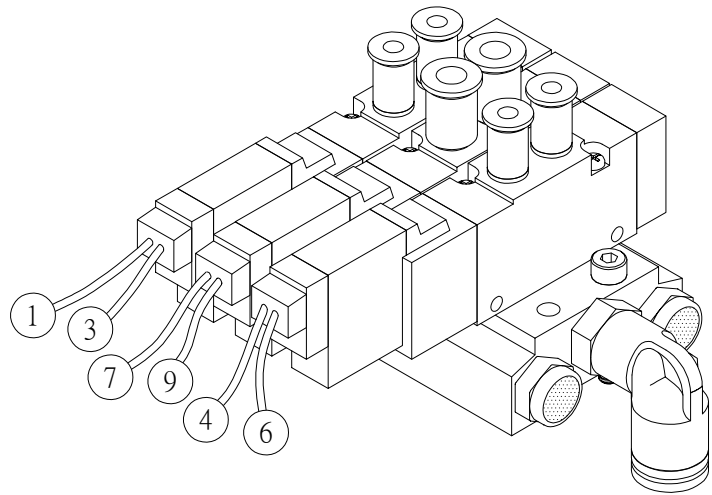
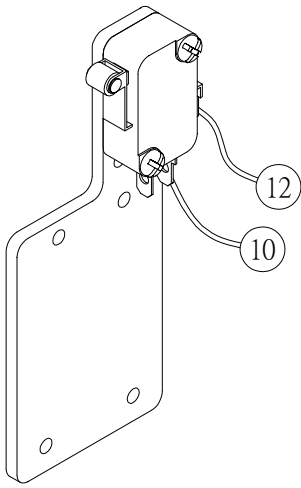
11-2. UTG2 氣動式 UTG2 For pneumatic type



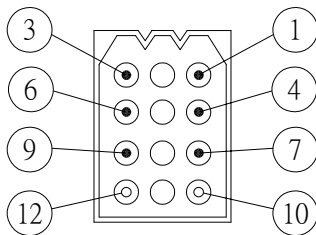
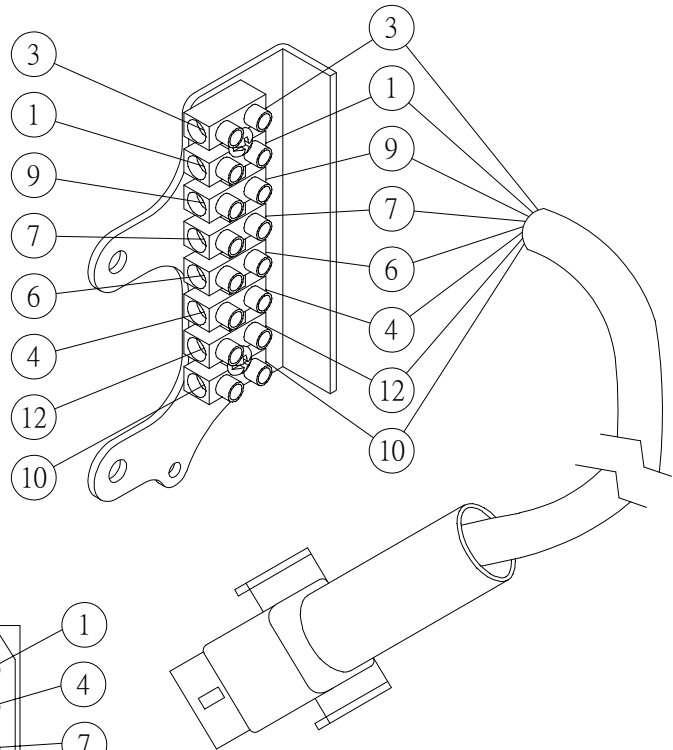
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	NCL SOL.
9	+24V
10	OV
12	SAFETY SW.
OPTION 15P	
5	NCL SOL.
10	+24V



11-3. UTH2 氣動式 UTH2 For pneumatic type



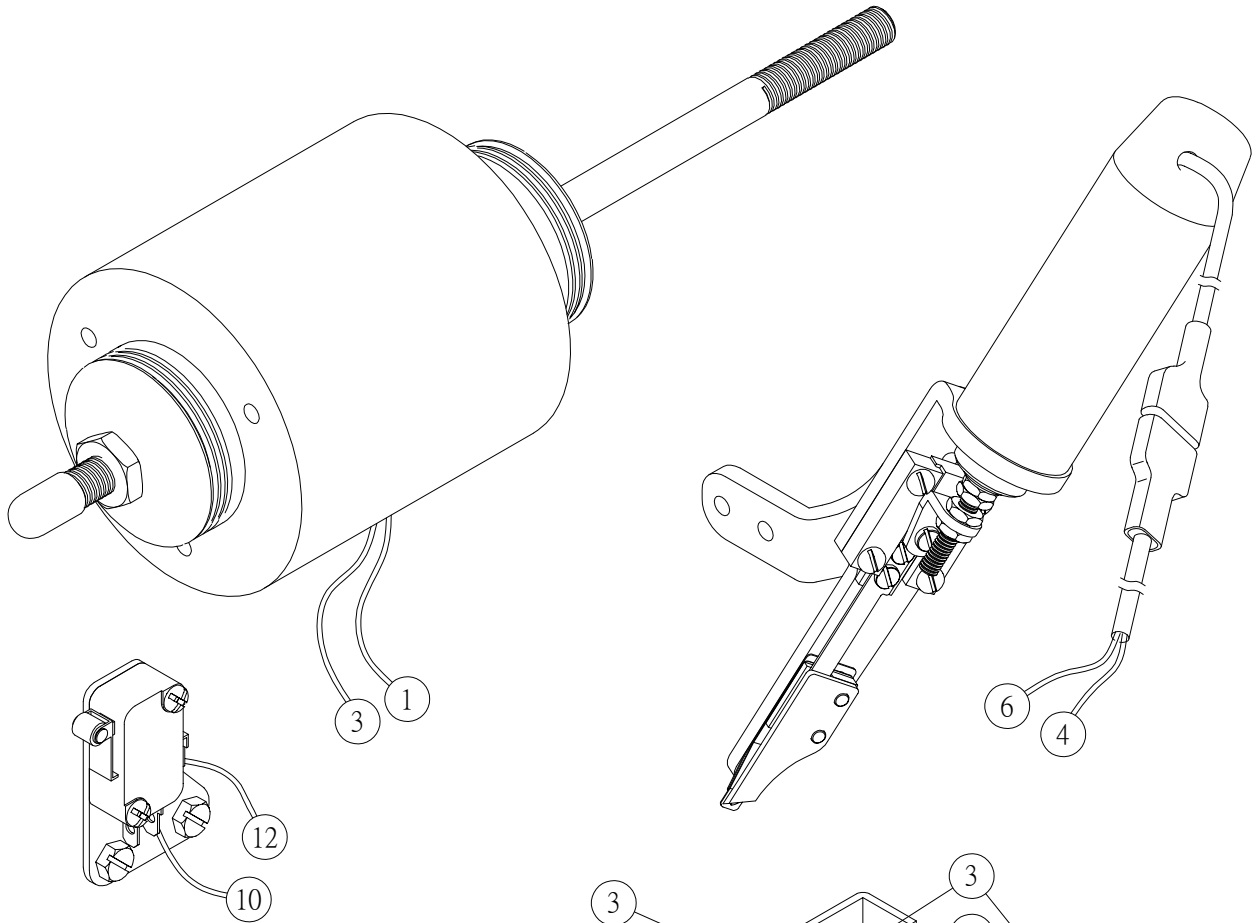
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.



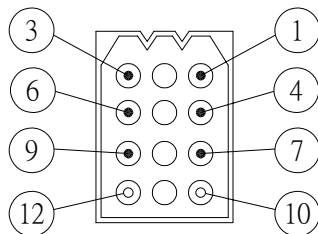
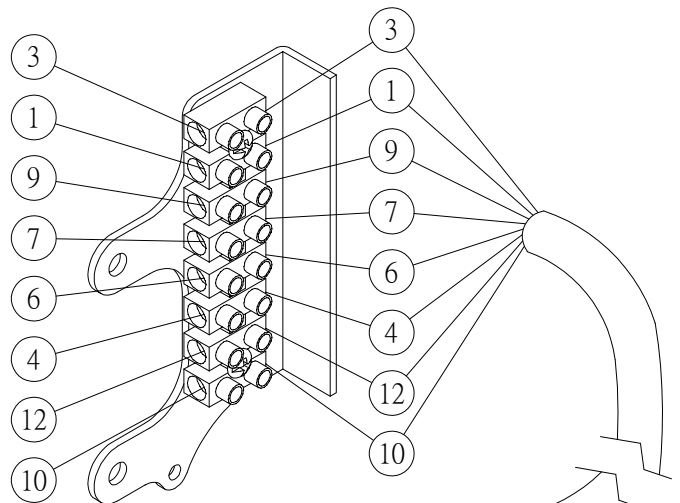
12. 磁力線圈配線圖 Wiring of solenoids

12-1. UCE-A1 (UTC04 / STC02 電動式 UTC04 / STC02 For electrical type)

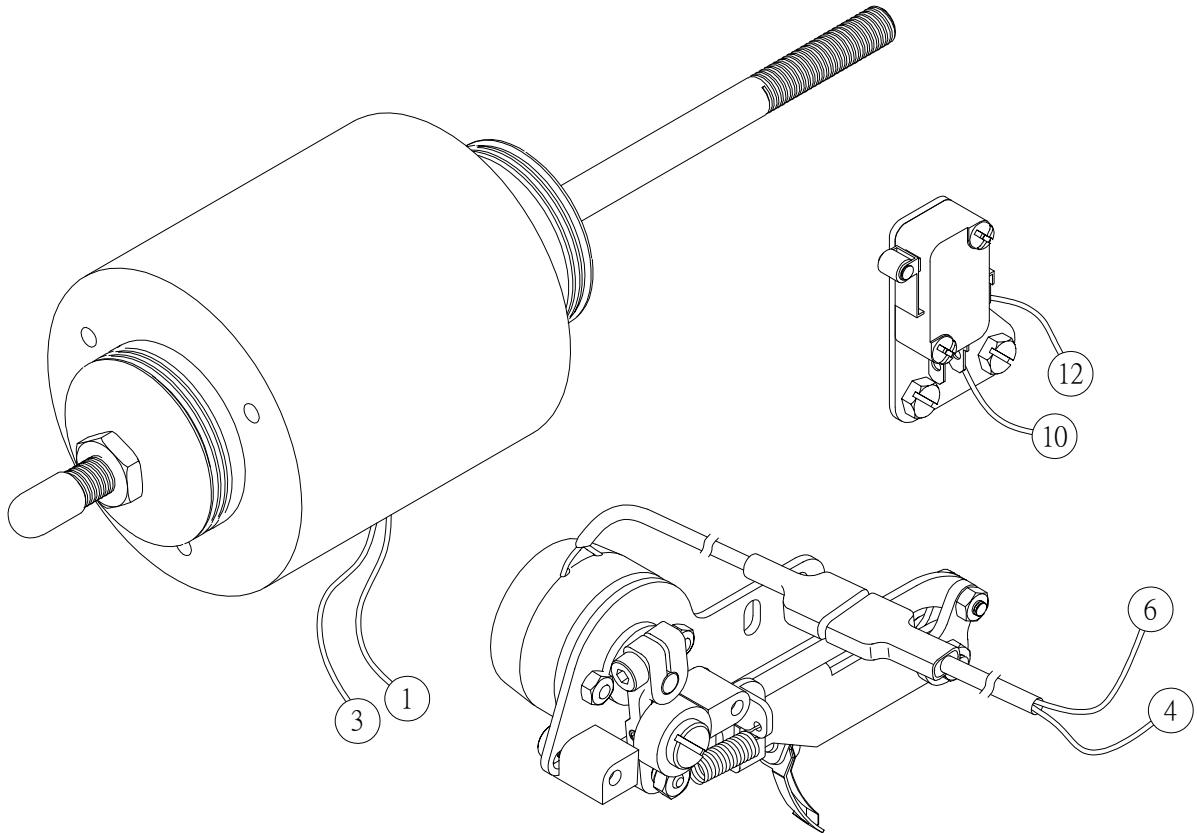
UCE-C1 (UTC06 / STC02 電動式 UTC06 / STC02 For electrical type)



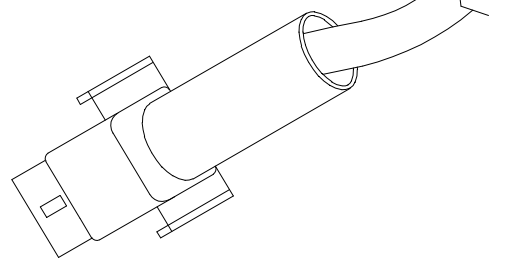
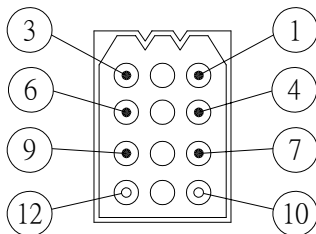
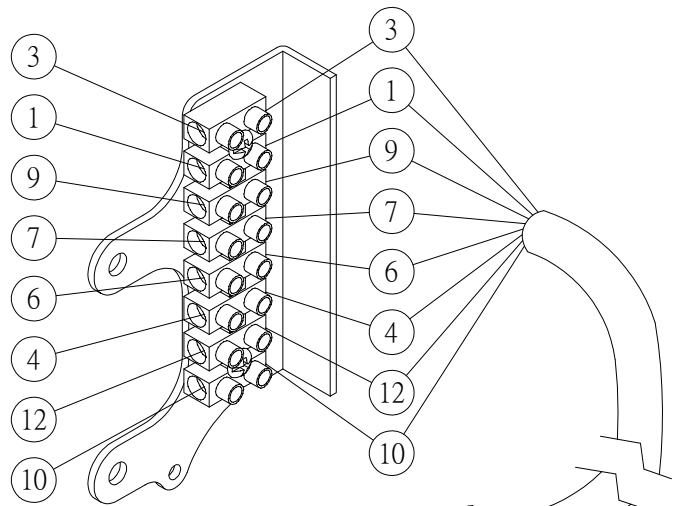
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.



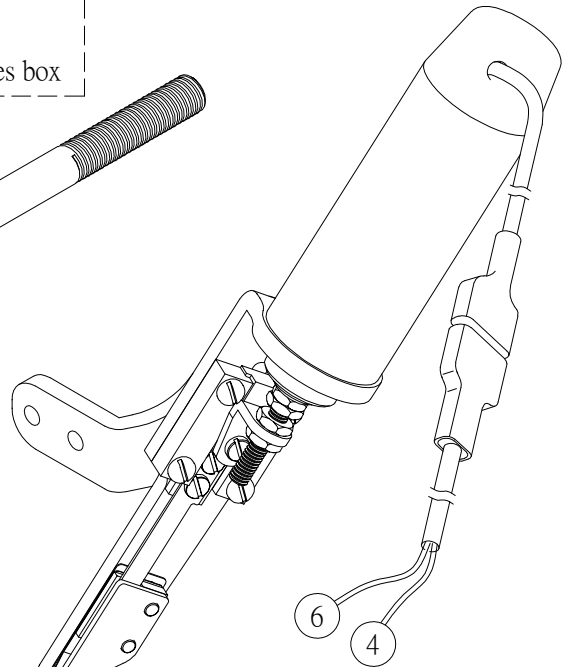
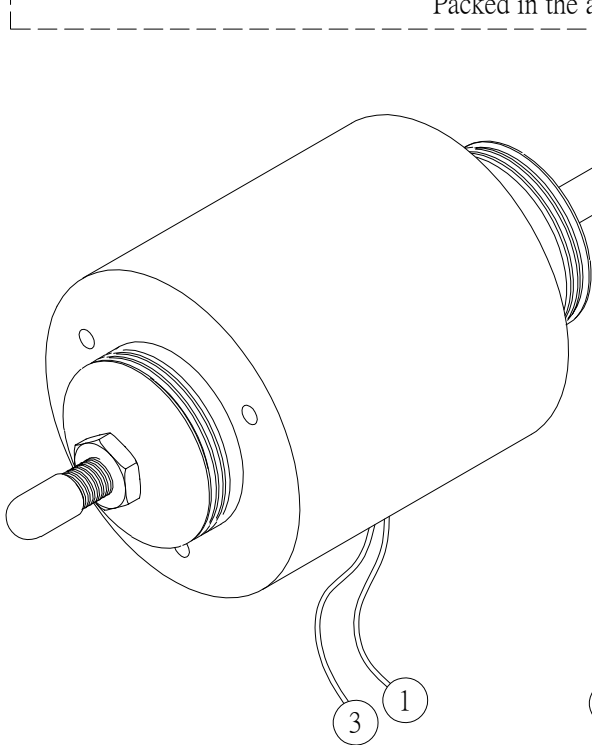
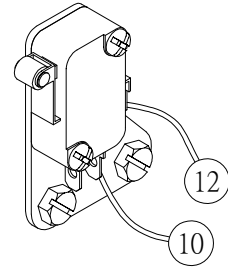
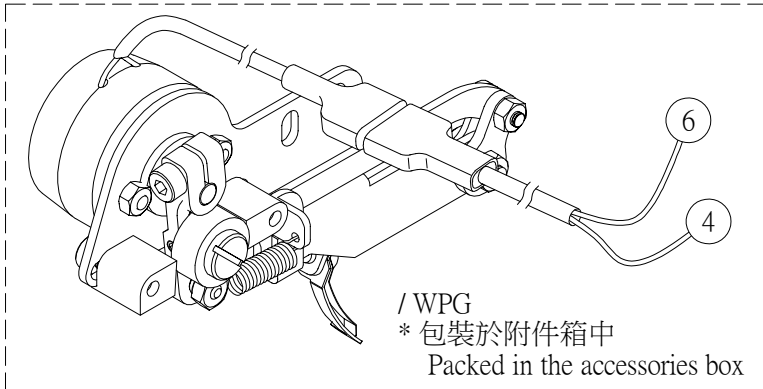
12-2. UCE-A2 (UTC04 / WPG01 電動式 UTC04 / WPG01 For electrical type)
 UCE-C2 (UTC06 / WPG01 電動式 UTC06 / WPG01 For electrical type)



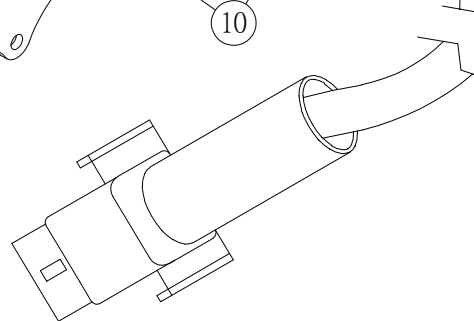
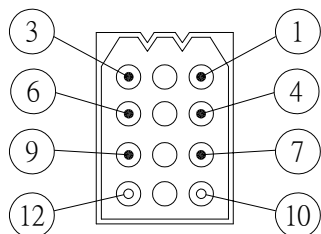
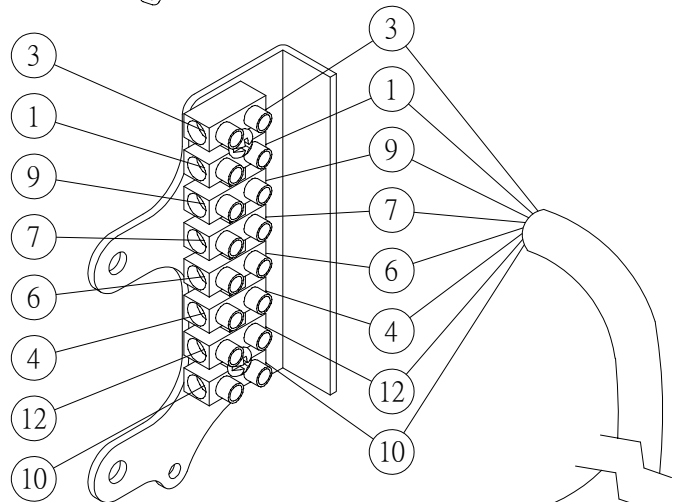
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.



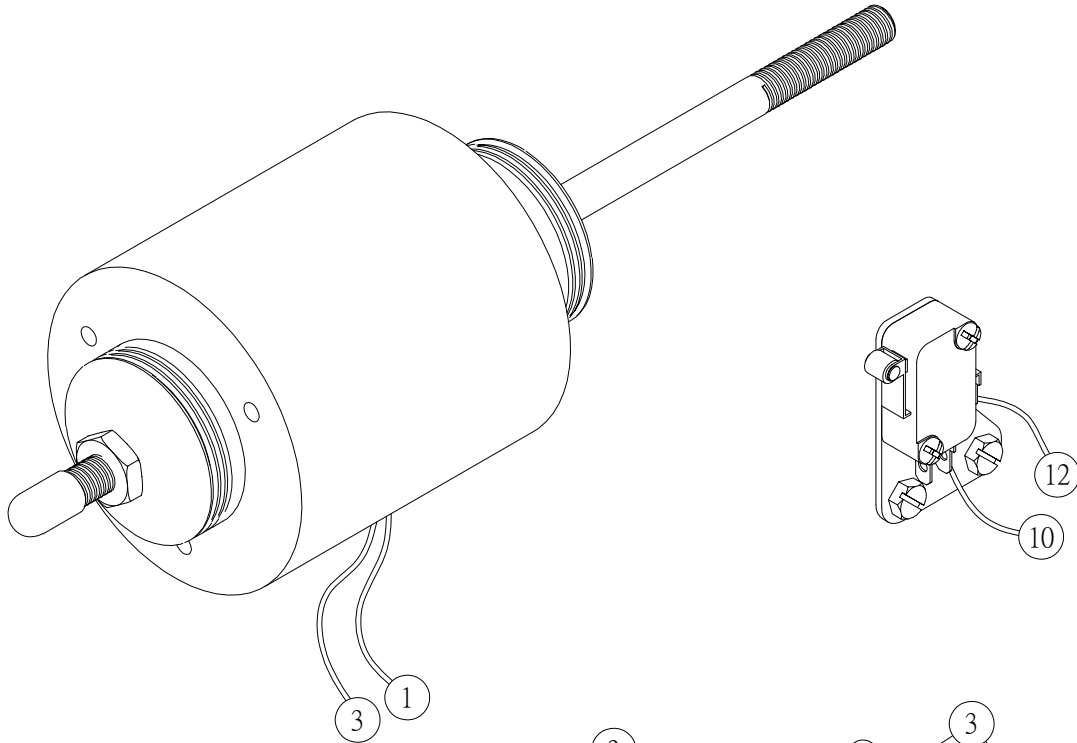
12-3. UCE-A3 (UTC04 / STC02 / WPG01 電動式 UTC04 / STC02 / WPG01 For electrical type)
 UCE-C3 (UTC06 / STC02 / WPG01 電動式 UTC06 / STC02 / WPG01 For electrical type)



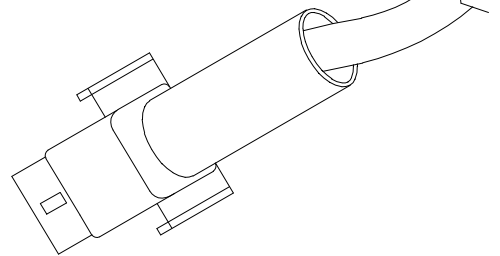
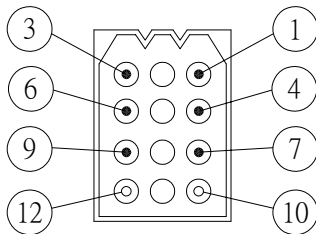
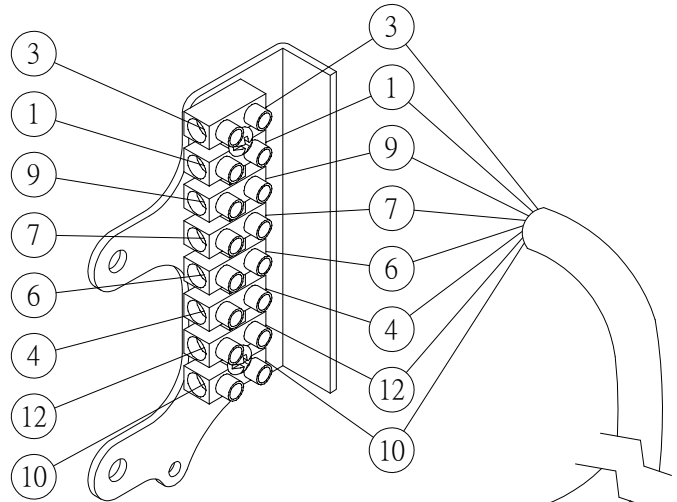
SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.



12-4. UCE-A4 (UTC04 電動式 UTC04 For electrical type)
 UCE-C4 (UTC06 電動式 UTC06 For electrical type)

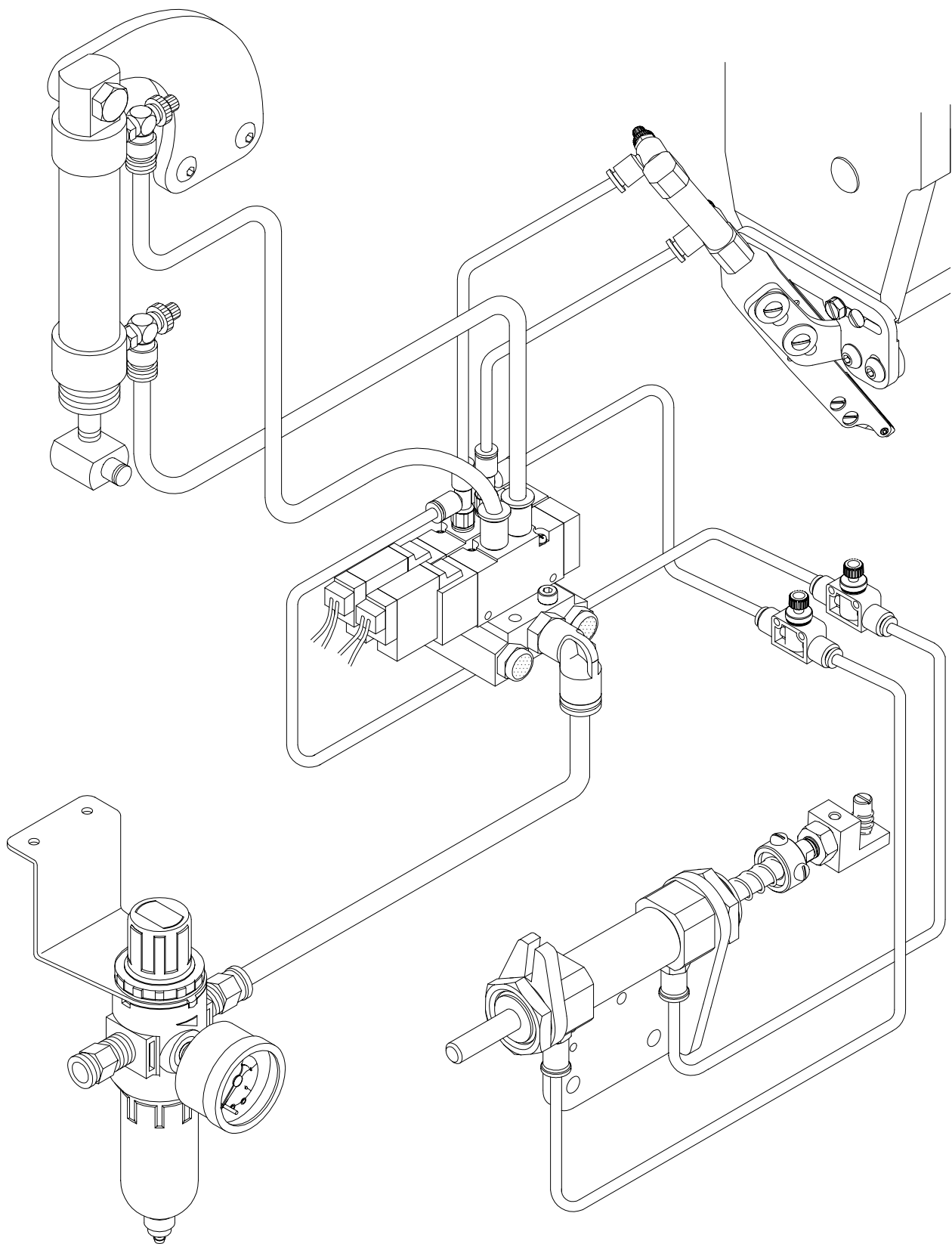


SEWING MACHINE 12P	
1	TRIMMER SOL.
3	+24V
4	WIPER SOL.
6	+24V
7	A.F.L. SOL.
9	+24V
10	OV
12	SAFETY SW.

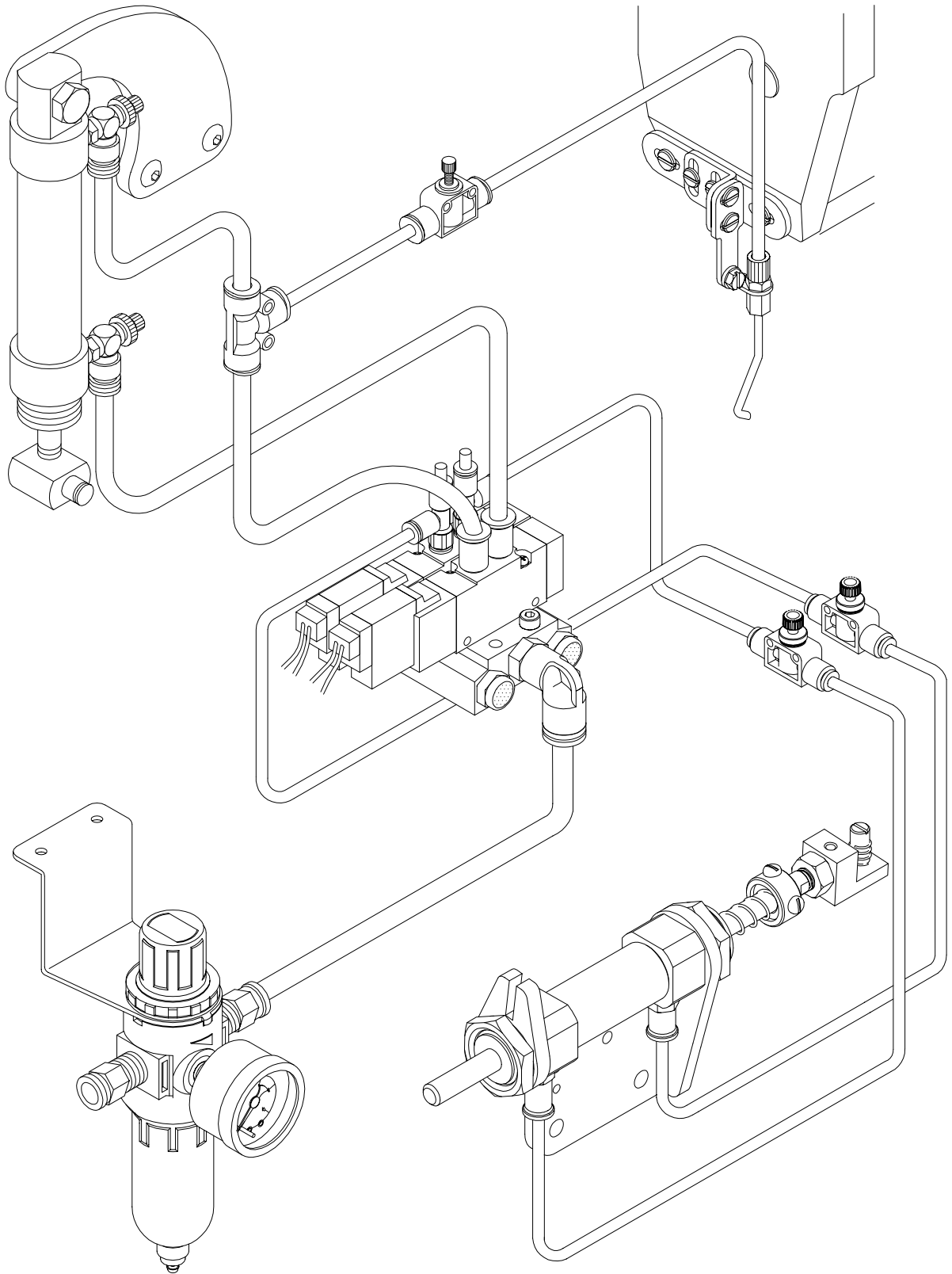


13. 空壓管配線圖 Pneumatic type compressed air pipe installation diagram

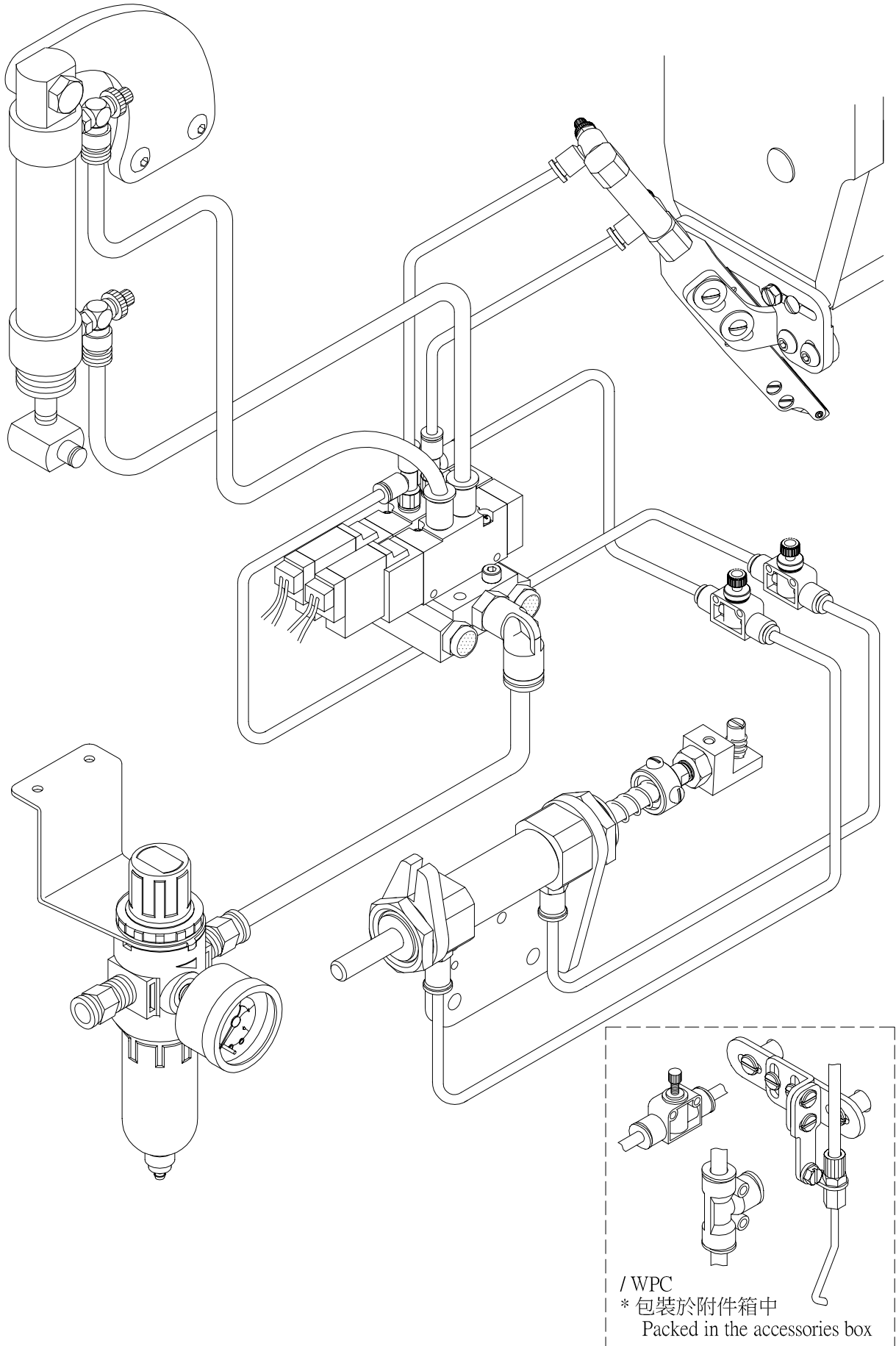
13-1. UCP-A1 UCP-AA (UTB2 / STB2 UTB4 / STB2 裝置 UTB4 / STB2 UTB2 / STB2 Device)
UCP-C1 (UTB06 / STB02 裝置 UTB06 / STB02 Device)



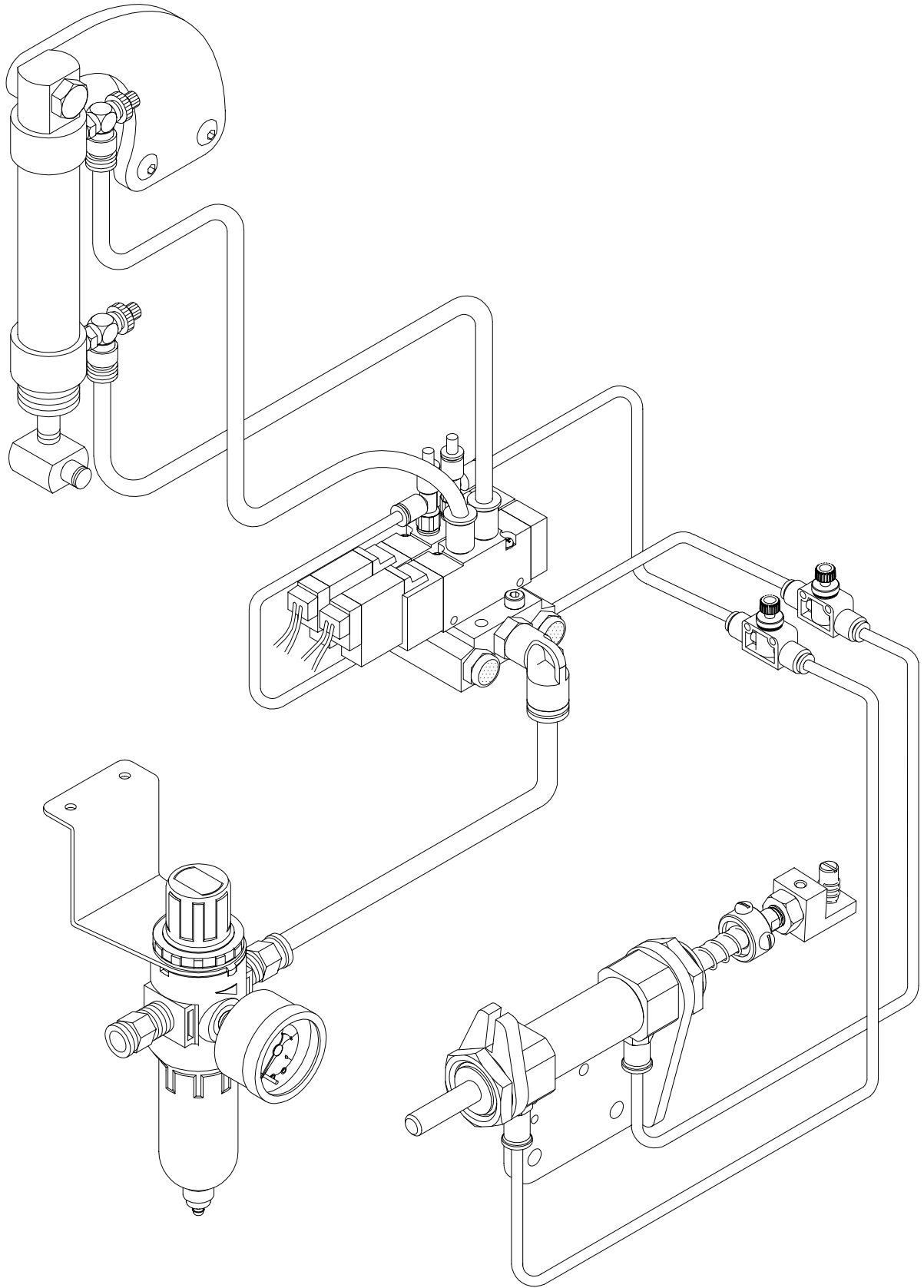
13-2. UCP-A2 (UTB02 / WPC01 裝置 UTB02 / WPC01 Device)
UCP-C2 (UTB06 / WPC01 裝置 UTB06 / WPC01 Device)



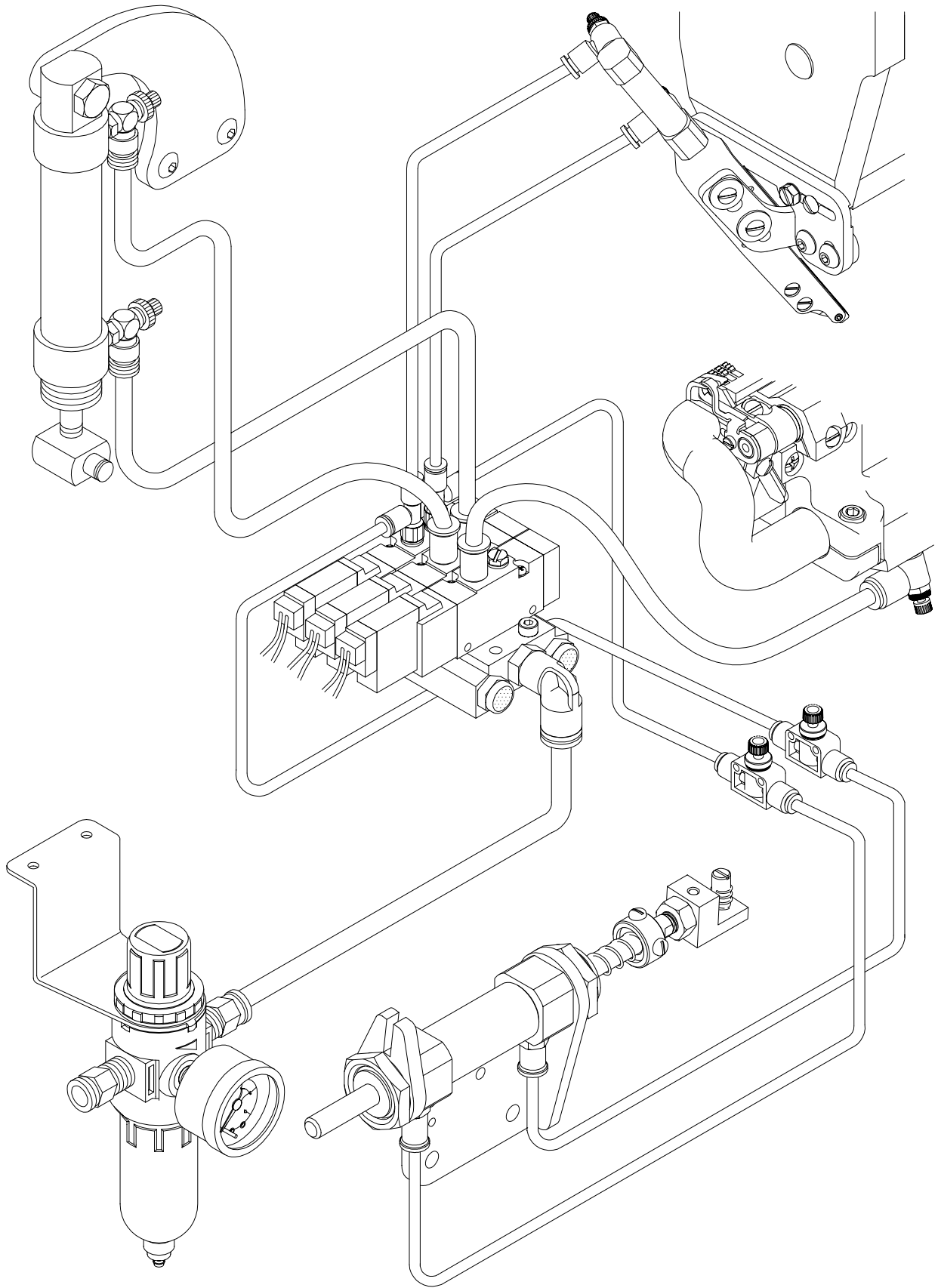
13-3. UCP-A3 (UTB02 / STB02 / WPC01 裝置 UTB02 / STB02 / WPC01 Device)
 UCP-C3 (UTB06 / STB02 / WPC01 裝置 UTB06 / STB02 / WPC01 Device)



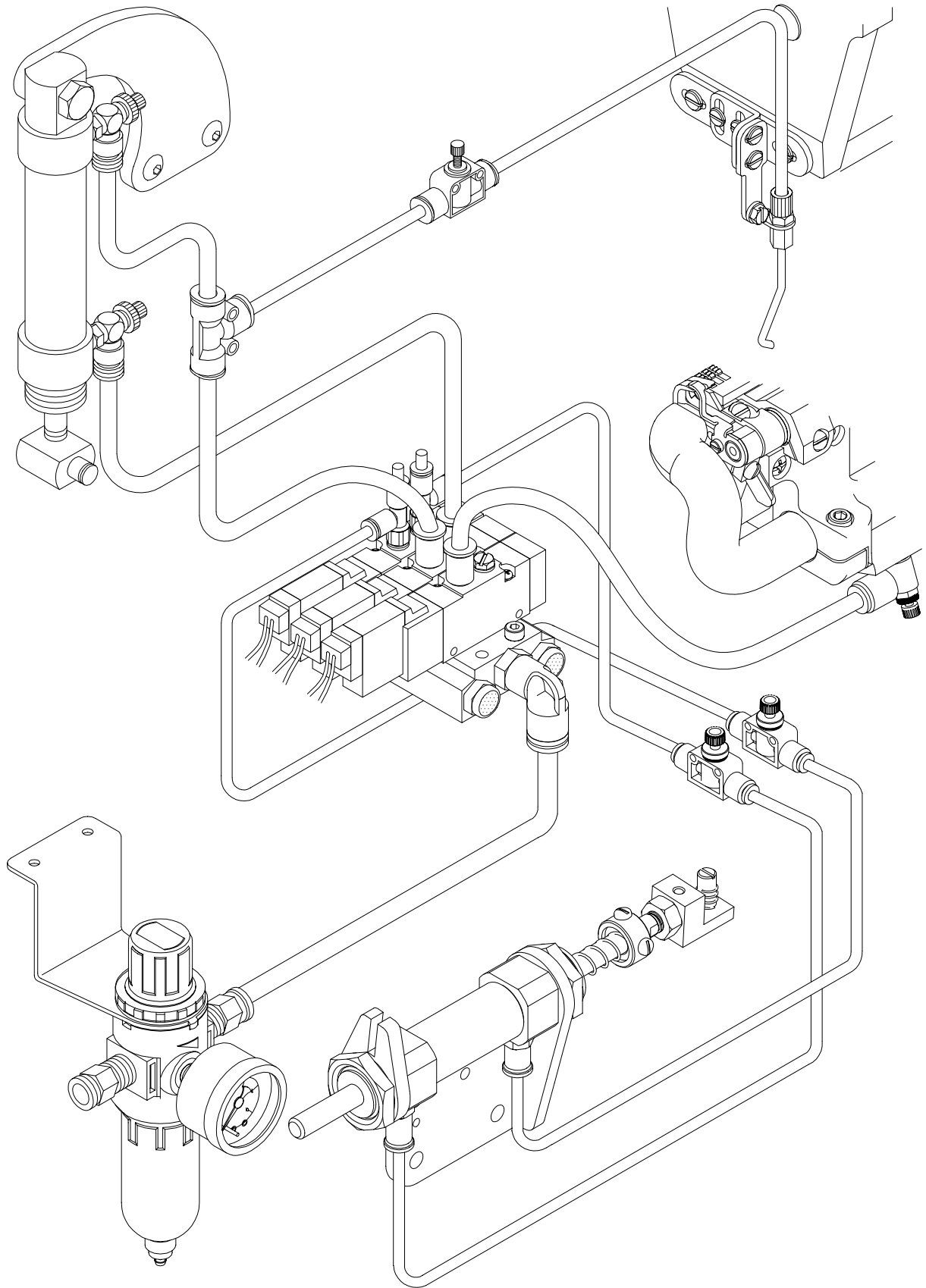
13-4. UCP-A4 (UTB02 裝置 UTB02 Device)
UCP-C4 (UTB06 裝置 UTB06 Device)



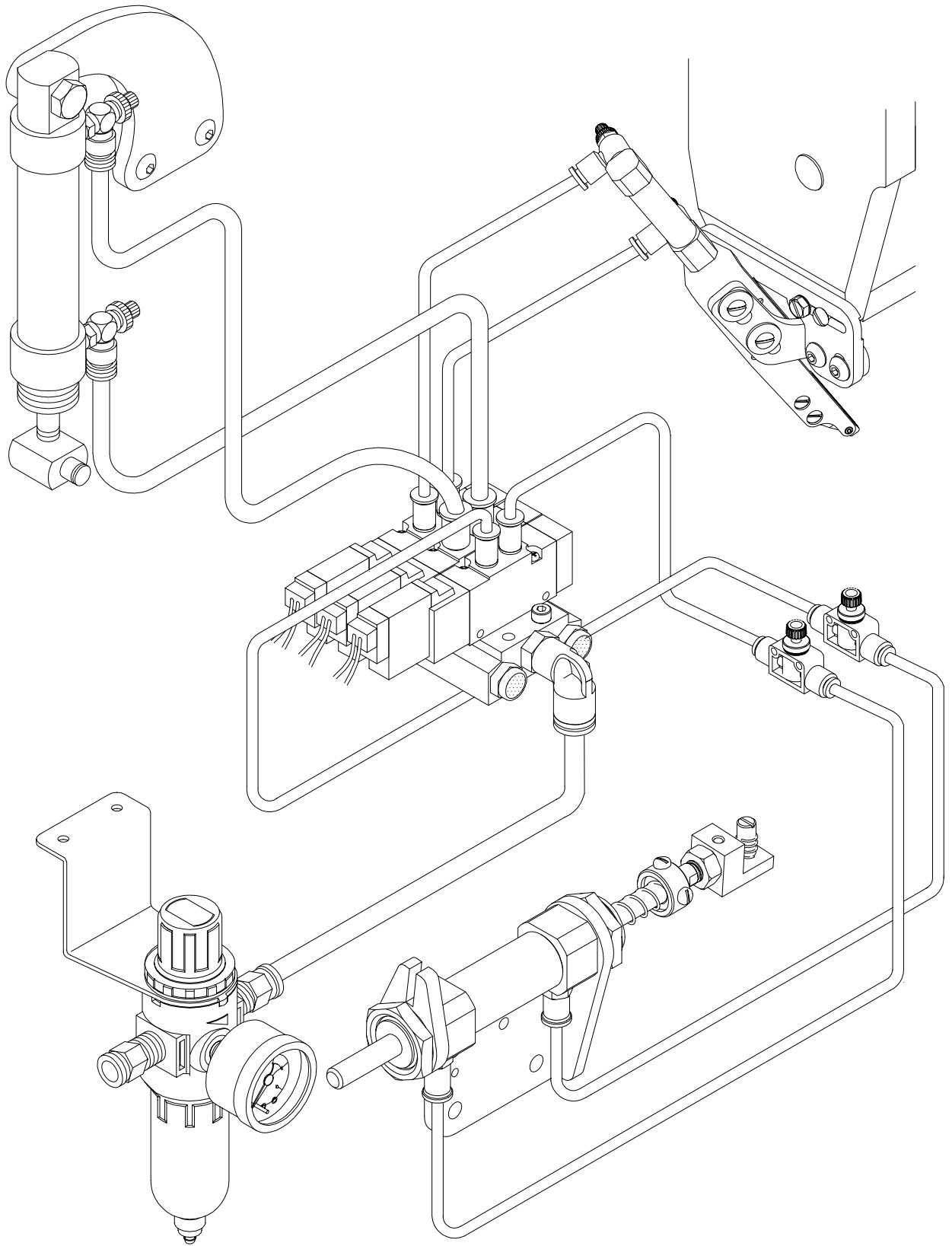
13-5. UCP-A5 (UTG2 / STB2 装置 UTG2 / STB2 Device)



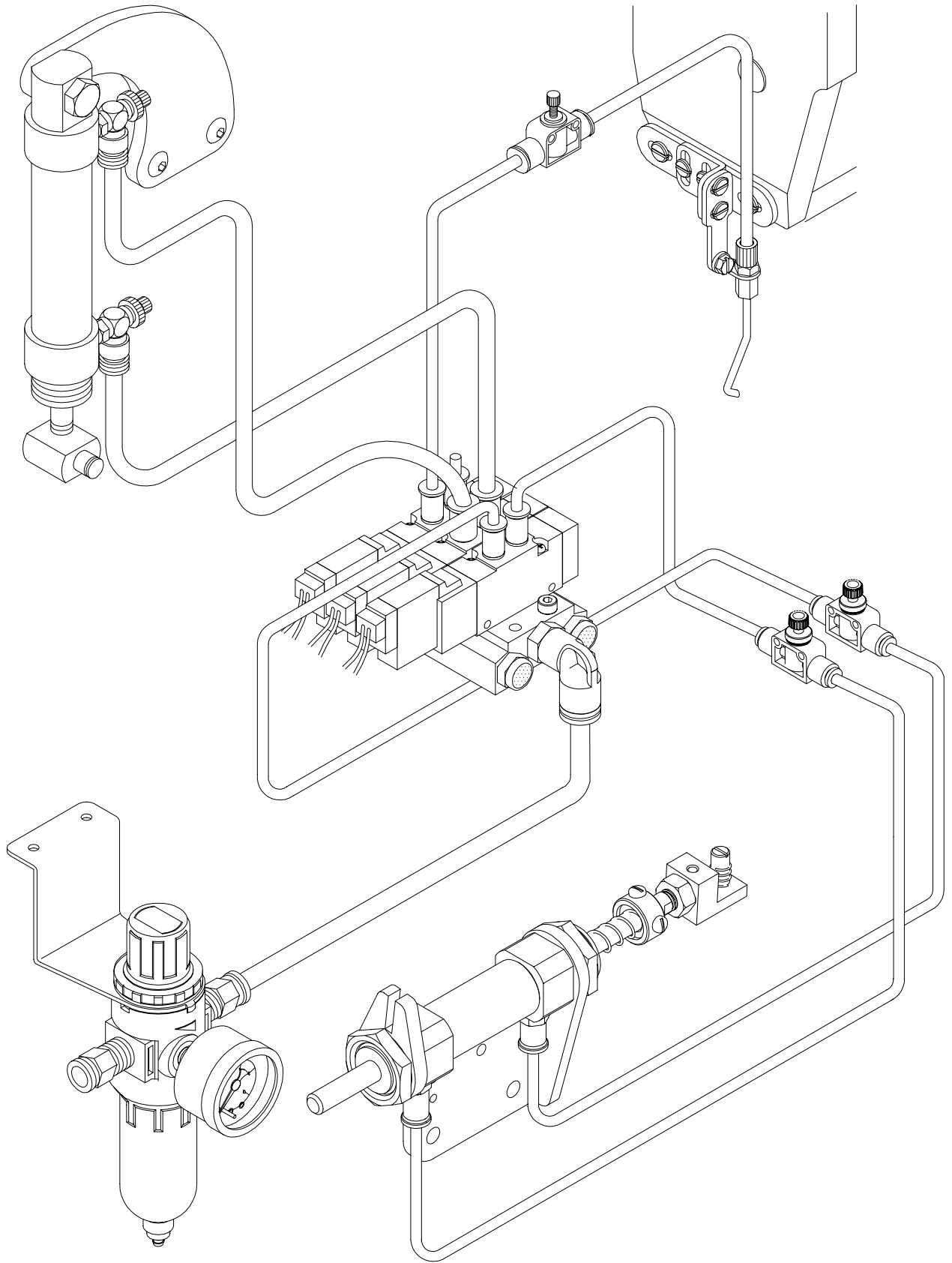
13-6. UCP-A6 (UTG2 / WPC 装置 UTG2 / WPC Device)



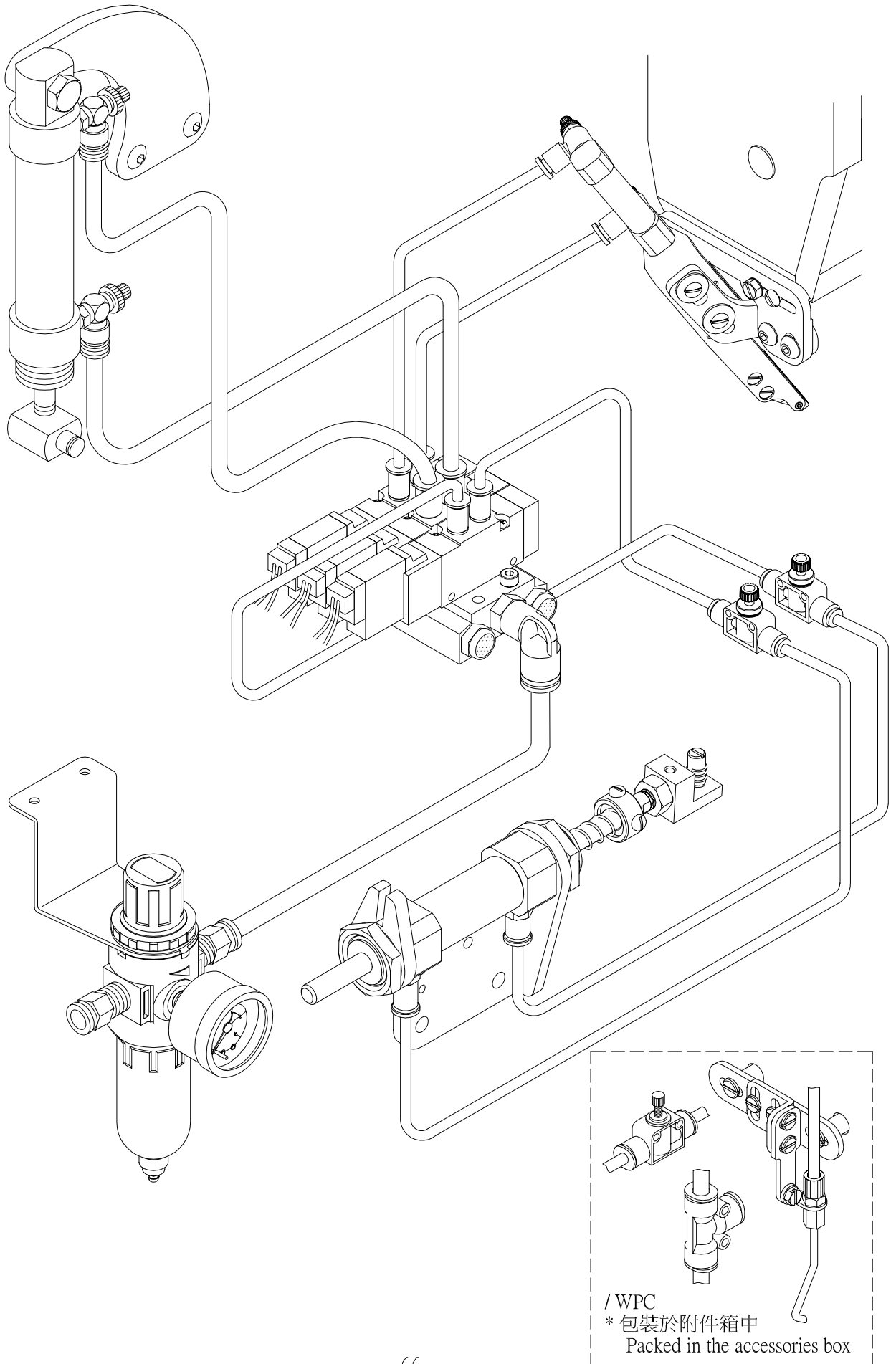
13-7. UCP-A7 (UTH2 / STB2 装置 UTH2 / STB2 Device)



13-8. UCP-A8 (UTH2 / WPC 裝置 UTH2 / WPC Device)



13-9. UCP-A9 (UTH2 / STB2 / WPC 裝置 UTH2 / STB2 WPC Device)



重要的安全性指示 Important safety instruction

1. 運輸 Transportation

- (1) 機器出廠時，是以上下兩塊保麗龍包裝。
The machine packed with two pieces of cover that made of expanded polystyrene.
- (2) 將機器及其保護之保麗龍放入外銷紙箱內。
Put the machine into a export carton.
- (3) 請使用推車或兩個人搬運此台機器。
Use a cart or by two men's hands to move it.

2. 儲存 Storage

- (1) 當機器沒有在使用時，請用防塵套罩住。
The machine must use dustcover to cover it when it does not work.
- (2) 請勿將機器儲存在室溫超過45°C的房間。
Avoid to storage the machine in the room temperature more than 45°C.

3. 工作時 Working

- 當室溫超過40°C時，機器有可能無法正常運作。
The machine doesn't work properly when temperature over 40°C.

4. 警語 Warning

煩請特別注意下列警告 Pay attention to these warning advices as follow :

- A. 工作區域是有危險性的。
Working area is dangerous.
- B. 當機器在運轉操作時，絕對不可碰觸針。
Never touch the needle when the machine is still running.
- C. 當你在操作機器送布時，請特別小心。
Be careful when you feed the fabric.
- D. 當機器在運轉操作時，請勿將手放置針和拖輪之間。
Do not insert your finger between needle and puller during sewing operation.

5. 請特別注意警告標籤 Pay attention to the warning sticker

- A. 當你在操作使用這機器時，任何活動件均需遮蓋擋住。
Movable parts must be covered with guard when you operate.
- B. 當在調整、穿線、更換梭子以及清潔機器時，請務必先關閉電源，並拔掉插頭。
Pull out the plug from socket first when you adjusting , threading , changing bobbin or cleaning.