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**SERVICE MANUAL  
&  
PARTS LIST**

**MODEL: Pro 4DX**

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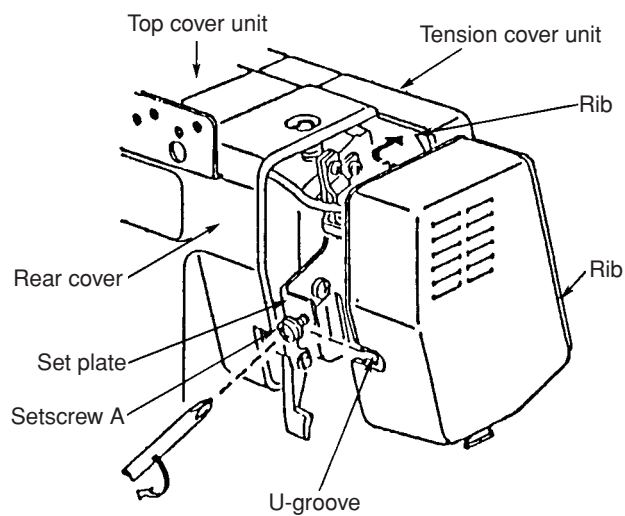
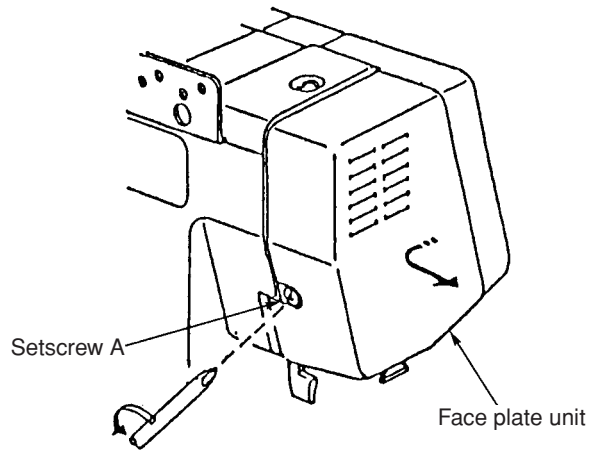
# TO CHANGE THE FACE PLATE UNIT

## To remove:

1. Loosen the setscrew A and remove the face plate unit.

## To attach:

2. Fit the U-groove in the face plate between the setscrew and set plate, put the rib in the tension cover unit, top cover and rear cover, and tighten the setscrew.



# TO CHANGE THE TOP COVER UNIT

## To remove:

1. Loosen two screws through hole of tension thread guide plate as illustration A, and remove the top cover.

## To attach:

2. Put the ribs in tension cover unit, and tighten the setscrew.

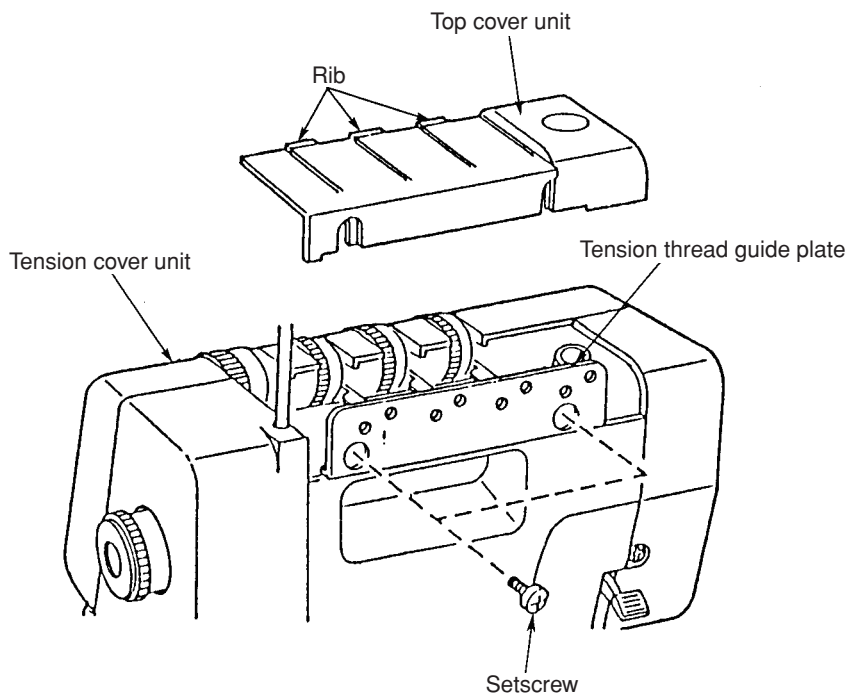


Illustration A

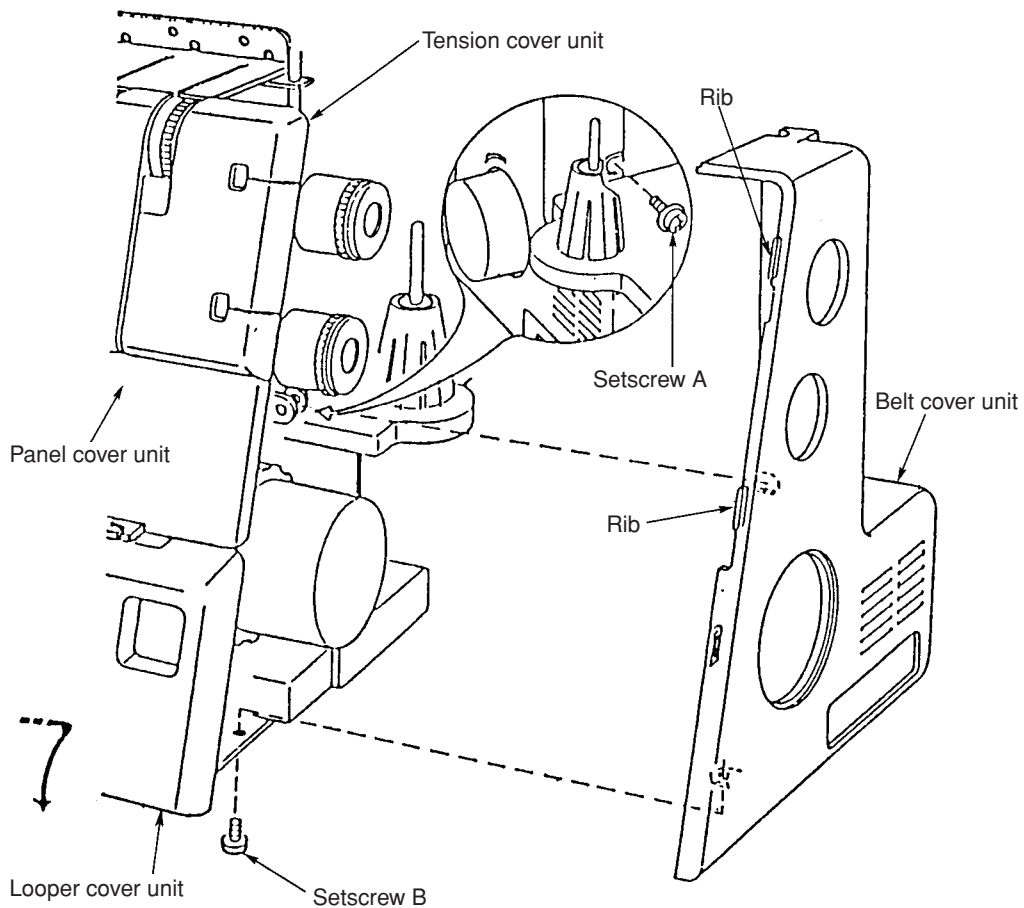
# TO CHANGE THE BELT COVER UNIT

## To remove:

1. Open the looper cover unit.
2. Loosen setscrew A and remove the setscrew B.
3. Remove the belt cover unit.

## To attach:

4. Put the ribs in panel cover unit and tension cover unit, and tighten setscrew A and B.



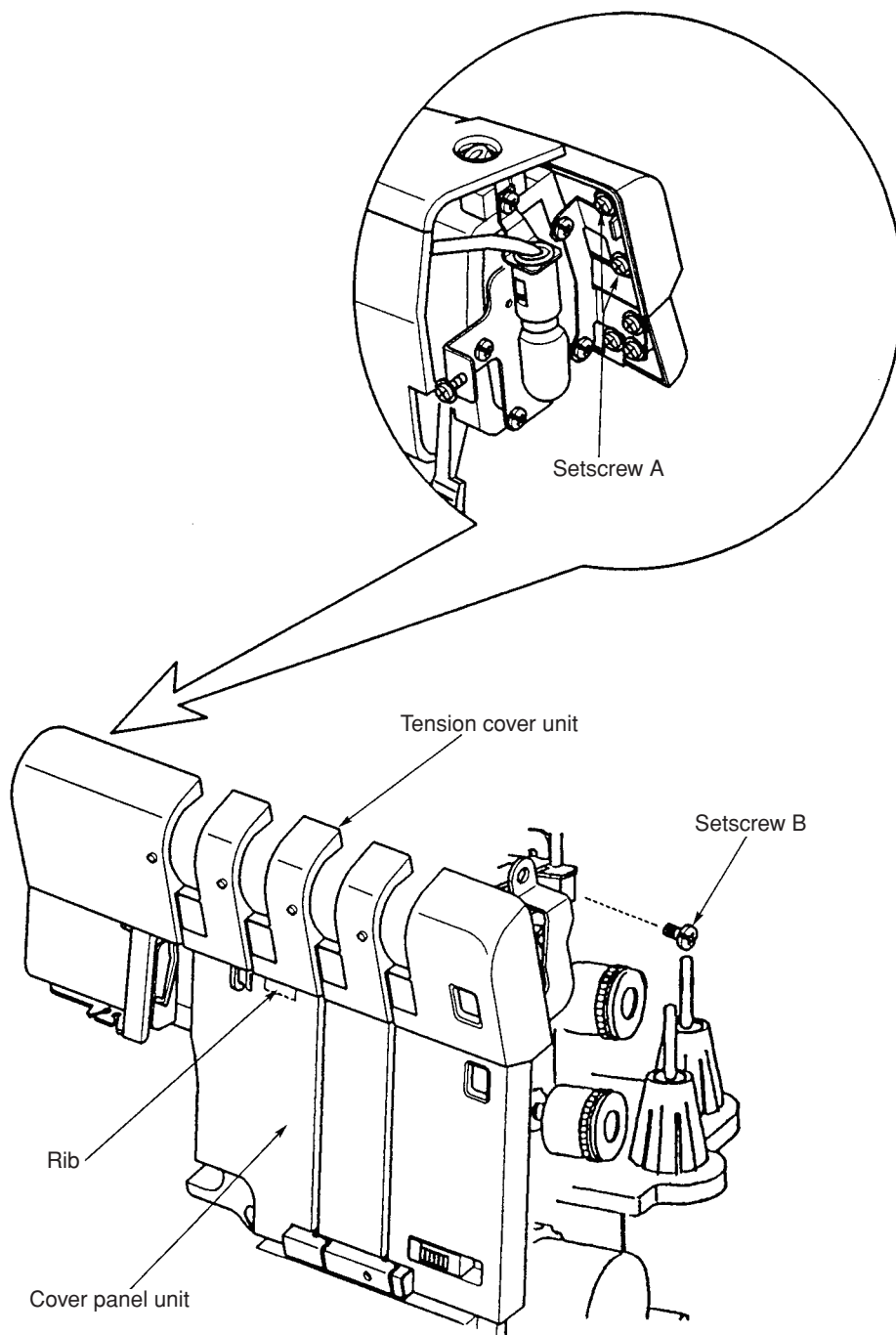
# TO CHANGE THE TENSION COVER UNIT

## To remove:

1. Remove face plate unit and belt cover unit.
2. Remove setscrew A and B, and remove tension cover unit.

## To attach:

3. Put ribs in panel cover unit, and tighten the setscrew A and B.
4. Attached the belt cover unit and face plate unit.



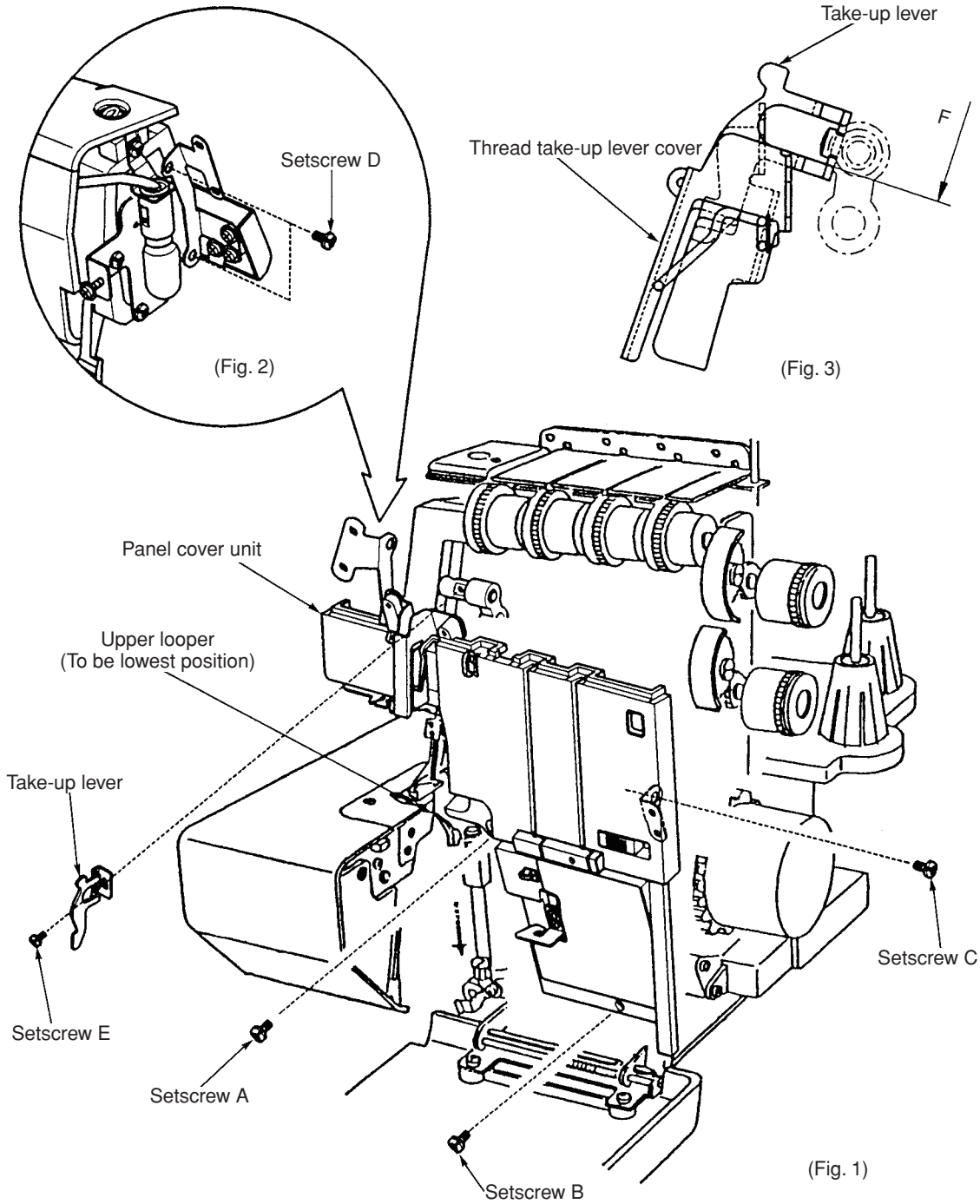
# TO CHANGE THE PANEL COVER UNIT

**To remove:**

- 1. Remove face plate unit, belt cover unit and tension cover unit.
- 2. Move the upper looper to its lowest position by turning the valance wheel in counterclockwise.
- 3. Remove setscrew A, B, C, D and E, and remove the panel cover unit.

**To attach:**

- 4. Attach the panel cover unit, and tighten setscrews A, B, C, D and E.  
(To set the thread take-up lever position, the thread take-up lever and the thread take-up lever cover should be set at F position as shown fig. 3.)
- 5. Attached the tension cover unit, belt cover unit and face plate unit.



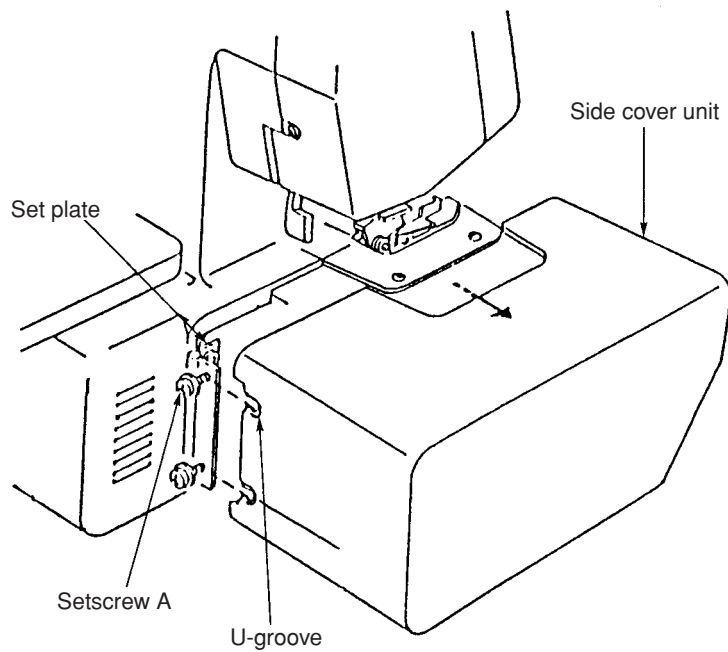
# TO CHANGE THE SIDE COVER UNIT

## To remove:

1. Loosen setscrew A and remove the side cover unit.

## To attach:

2. Fit the U-groove in the side cover unit between the setscrew and set plate.
3. Tighten the setscrew A.





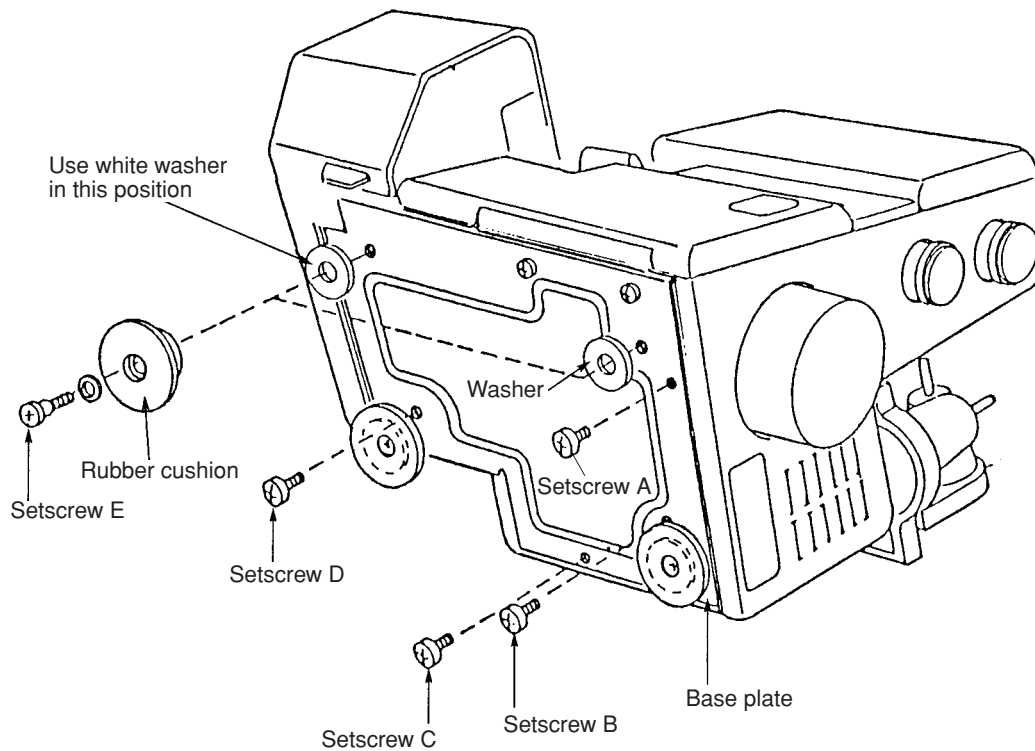
# TO CHANGE THE BASE PLATE

## To remove:

1. Remove the setscrew A, B, C, D and two hinge screws E, and remove the rubber cushions.
2. Remove the base plate.

## To attach:

3. Attach the base plate, and tighten the setscrew A, B, C and D.
4. Attach the rubber cushions, washers, and tighten the hinge screws.



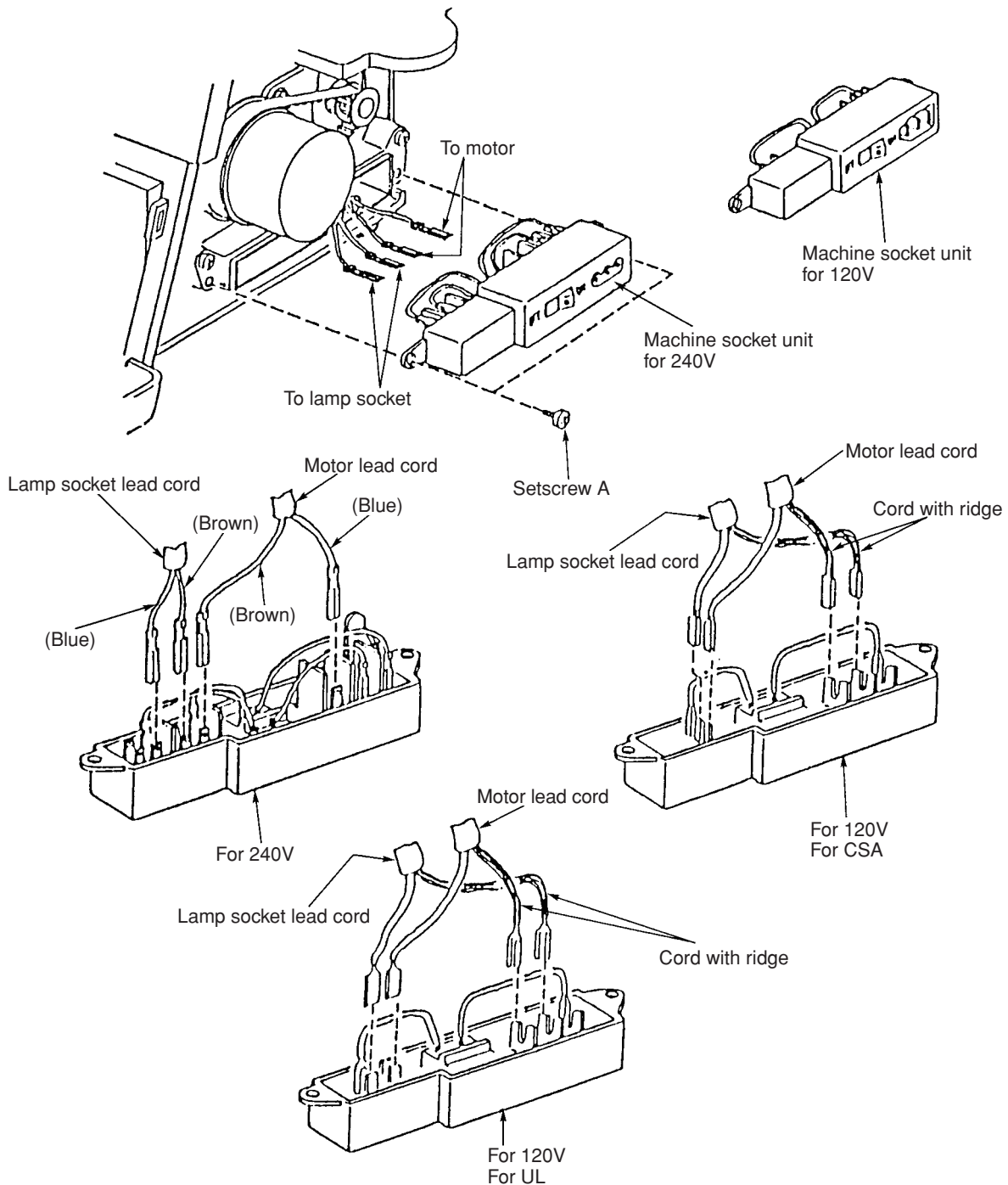
# TO CHANGE THE MACHINE SOCKET UNIT

## To remove:

1. Remove the belt cover.
2. Remove the two setscrew A, and pull out the cord connectors.

## To attach:

3. Inset the cord connectors as shown below.
4. Attach the machine socket unit, and tighten the two screws.
5. Attach the belt cover unit.



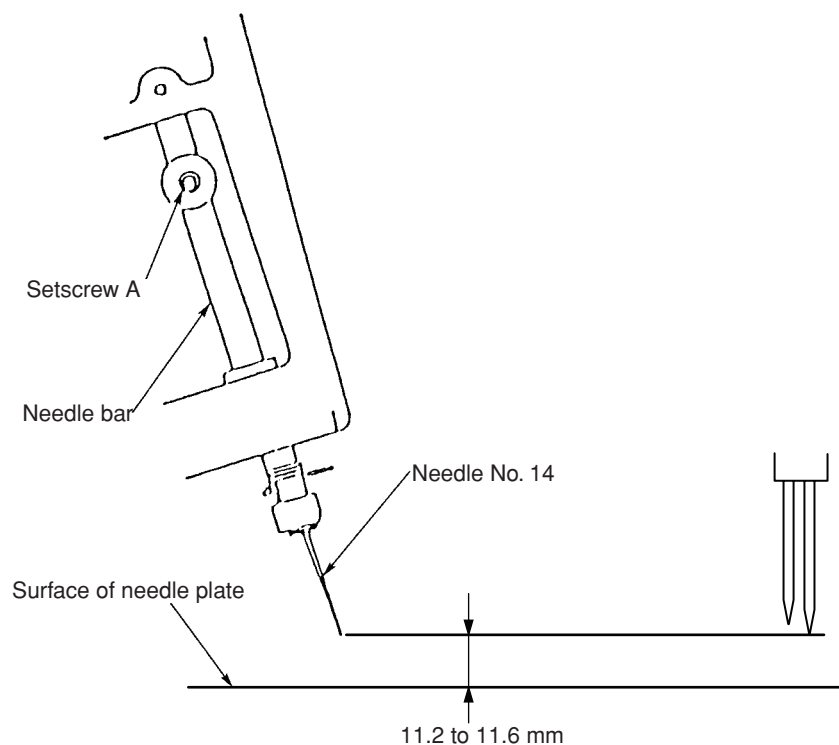
# TO ADJUST THE NEEDLE BAR HEIGHT

## Correct Setting:

The distance between the tip of needle on the right and the surface of needle plate should be 11.2 to 11.6 mm when the needle bar is at the highest position.

## To adjust:

1. Remove the face plate unit.
2. Turn the balance wheel toward you with your hand, and set the needle bar at the highest position.
3. Loosen the setscrew A to adjust the height, and tighten, the setscrew A after the adjustment is done.
4. Turn the balance wheel toward you one cycle, and recheck the needle bar height.
5. Attach the face plate unit.



# TO ADJUST THE PRESSER BAR HEIGHT

## Correct Setting:

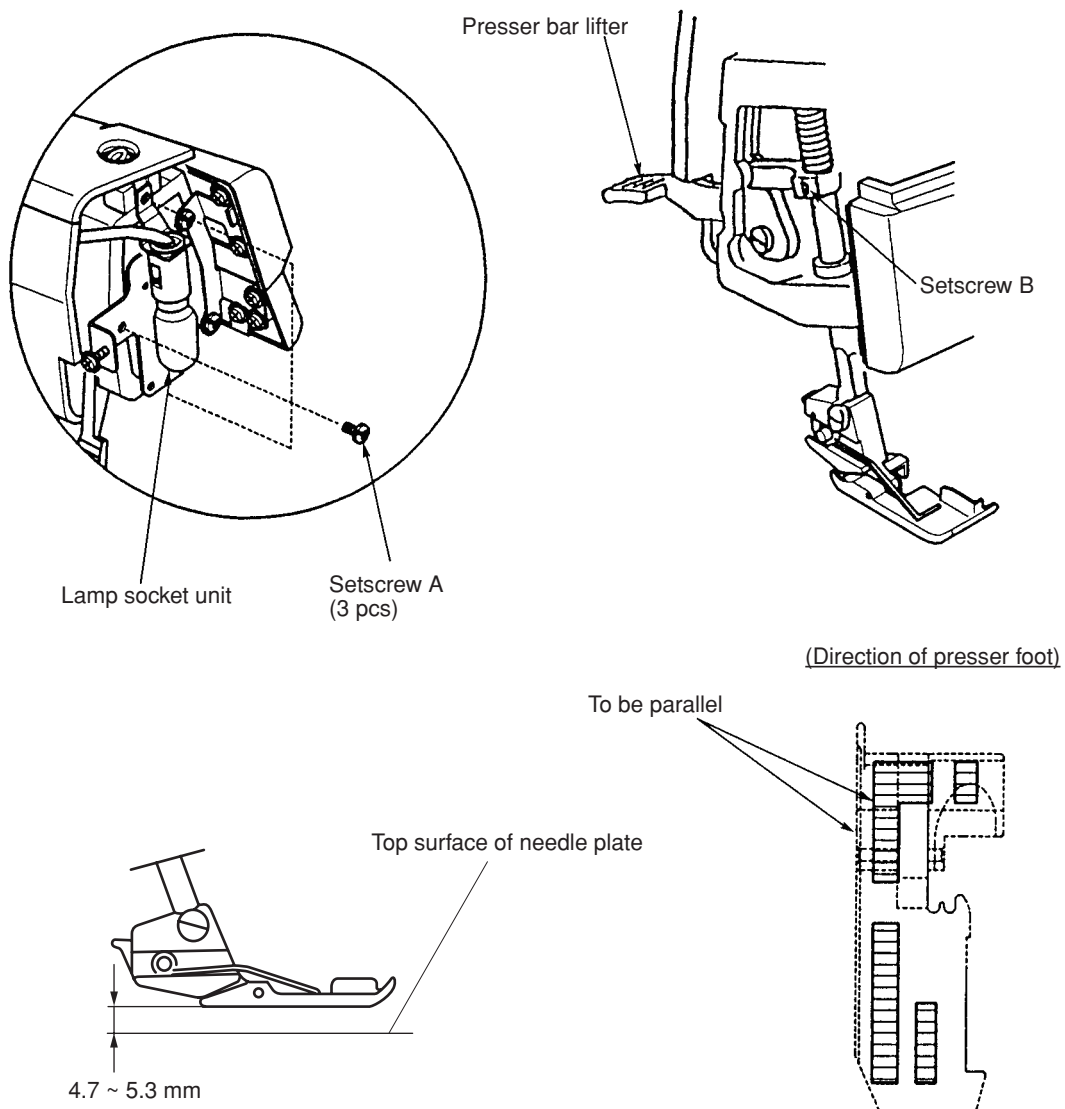
The distance between the surface of needle plate and bottom of presser foot should be 4.7 to 5.3 mm (47/254 to 53/254") when the presser bar lifter is raised.

## To adjust:

1. Remove the face plate unit.
2. Remove the setscrew A to move the lamp socket unit.
3. Raise the presser bar lifter, and loosen the setscrew B.

Then adjust the presser bar height, the side of presser foot should be parallel with the hole of needle plate.

4. Tighten the setscrew B.
5. Tighten the setscrew A.
6. Attach the face plate unit.



# TO ADJUST THE FEED DOG HEIGHT

## Correct Setting:

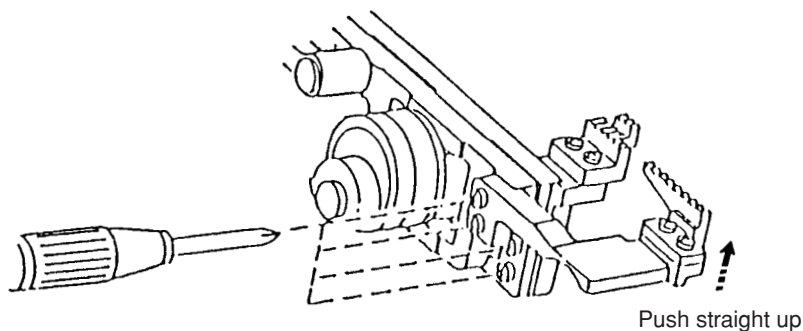
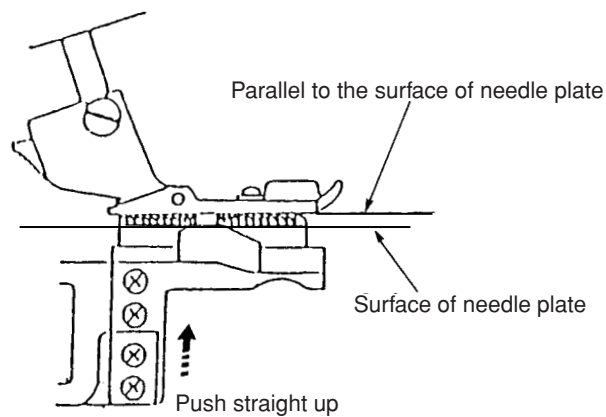
When the presser foot is lowered and the feed dogs are at their highest position, the distance between the surface of needle plate and bottom of presser foot should be 0.75 to 0.95 mm.

## To adjust:

1. Set the stitch length dial at "3" and the differential feed dial at "1.0".
2. Lower the presser foot and raise the feed dogs to their highest position by turning the balance wheel.
3. Loosen the main & sub feed dog screws (4 pcs).
4. Push the main feed dog straight upward and adjust the distance between the surface of needle plate and bottom of presser foot, then tighten the setscrews (2 pcs).
5. When the top of the main feed dog is level to the top surface of needle plate in its downward motion by turning the balance wheel.

Loose setscrews for sub feed dog (2 pcs), and push the sub feed dog straight upward until its top surface is to be level to the top surface of needle plate. Then tighten the setscrews of sub feed dog.

6. Check if these feed dogs are attached in parallel to the surface of needle plate while turning the balance wheel.



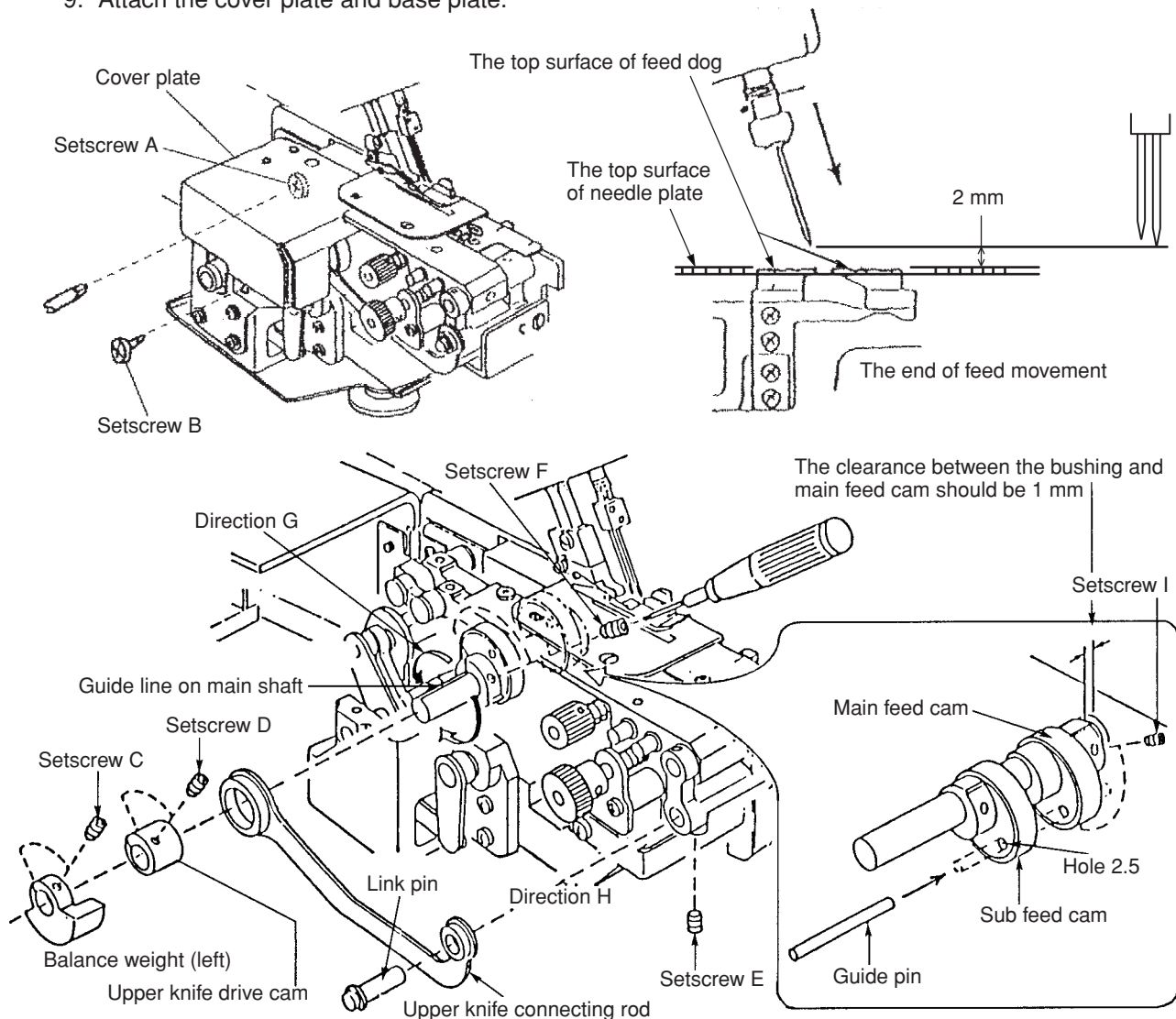
# TIMING OF NEEDLE AND FEED DOG

## Correct Setting:

When the tip of right needle is at 2 mm above the needle plate in its downward motion, and lowered presser foot, the top of the feed dog tenth should be level to the top surface of needle plate at their rearmost position.

## To adjust:

1. Remove the base plate.
2. Loose setscrew A and remove setscrew B, remove cover plate.
3. Loose setscrew C and remove balance weight, loose setscrew D and remove knife cam, loose setscrew E and remove link pin, upper knife rod.
4. Set feed regulator dial to 3.0, differential dial to 1.0.
5. Raise the presser foot and move the tip of right needle is at 2 mm above the needle plate in its downward motion by turning the balance wheel.
6. Lower the presser foot, and loose the two screws F and adjust the position of the feed cam while aiming the guide line.
  - \* Turn the feed cam to the direction G if the feed dogs are lower than the surface of the needle plate.
  - \* Turn the feed cam to the direction H if the feed dogs are higher than the surface of the needle plate.
7. Loose the two screws I, turn the balance wheel to get the hole 2.5 mm of sub feed cam in front position, put the guide pin through the sub feed to main feed cam, tighten the setscrews I. (Clearance between main feed cam and bushing is to be 1 mm).
8. Attach the link pin through the upper knife rod, and attach the balance weight and knife cam to main shaft, and set to guide line, tighten the setscrews C and D.
9. Attach the cover plate and base plate.



# TO ADJUST THE TENSION OF SUB THREAD TENSION DIAL

After the correct thread tension for 4 thread overlook standard sewing, slide the slider from "STD." position to "R. H." position without turning the thread tension dials.

(Make sure the thread guide is set at "3/4" position.)

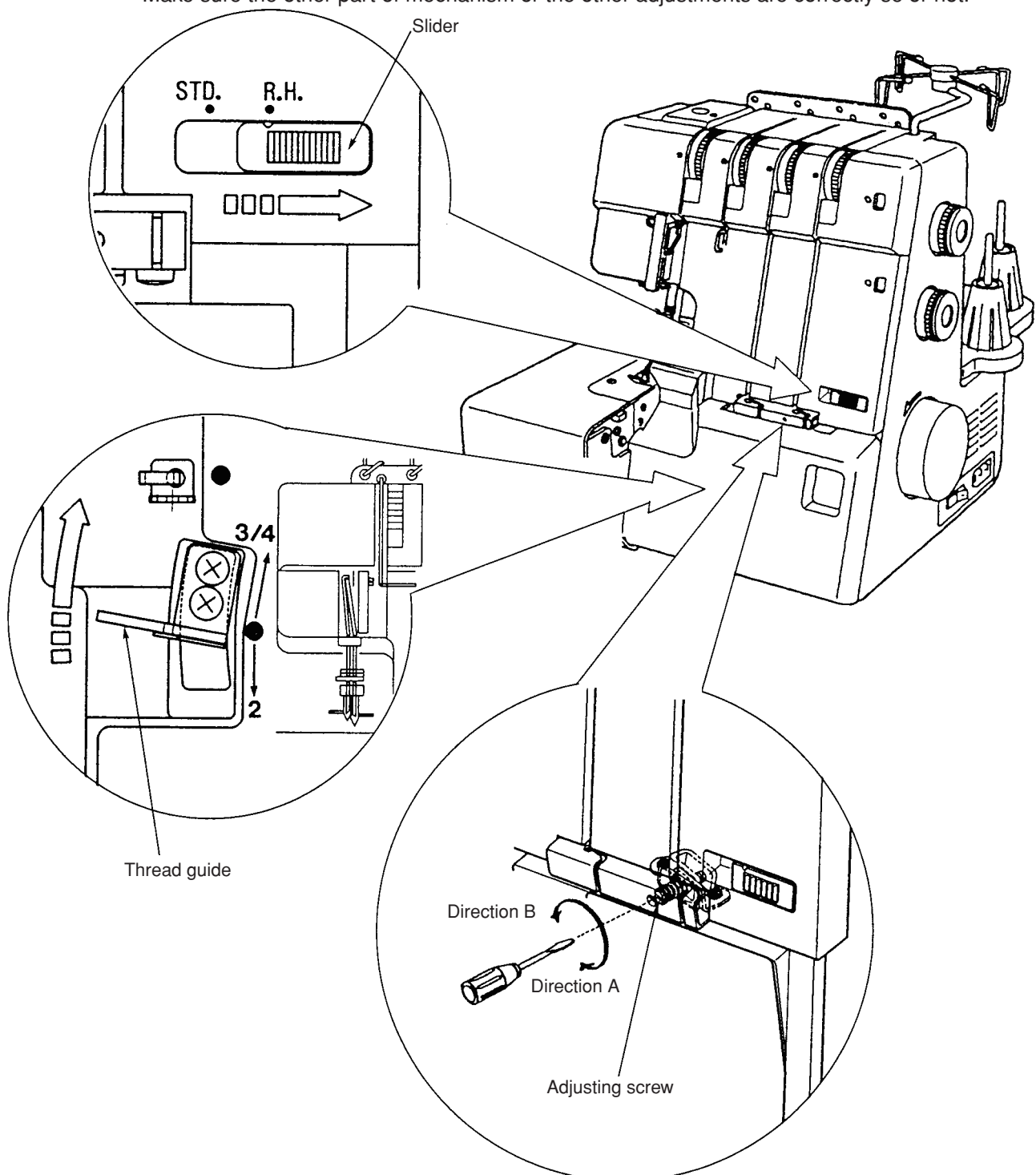
Also adjust the sub thread tension dial as follows.

(Make sure the chaining finger position is set at "R" position and remove the left needle and thread.)

1. When the lower looper thread tension is looser, turn the adjusting screw to "A" direction.
2. When the lower looper thread tension is tighter, turn the adjusting screw to "B" direction as figure.

Note: If the tension is not correctly set within two turns of the adjusting screw, do not turn the adjusting screw.

Make sure the other part of mechanism or the other adjustments are correctly set or not.



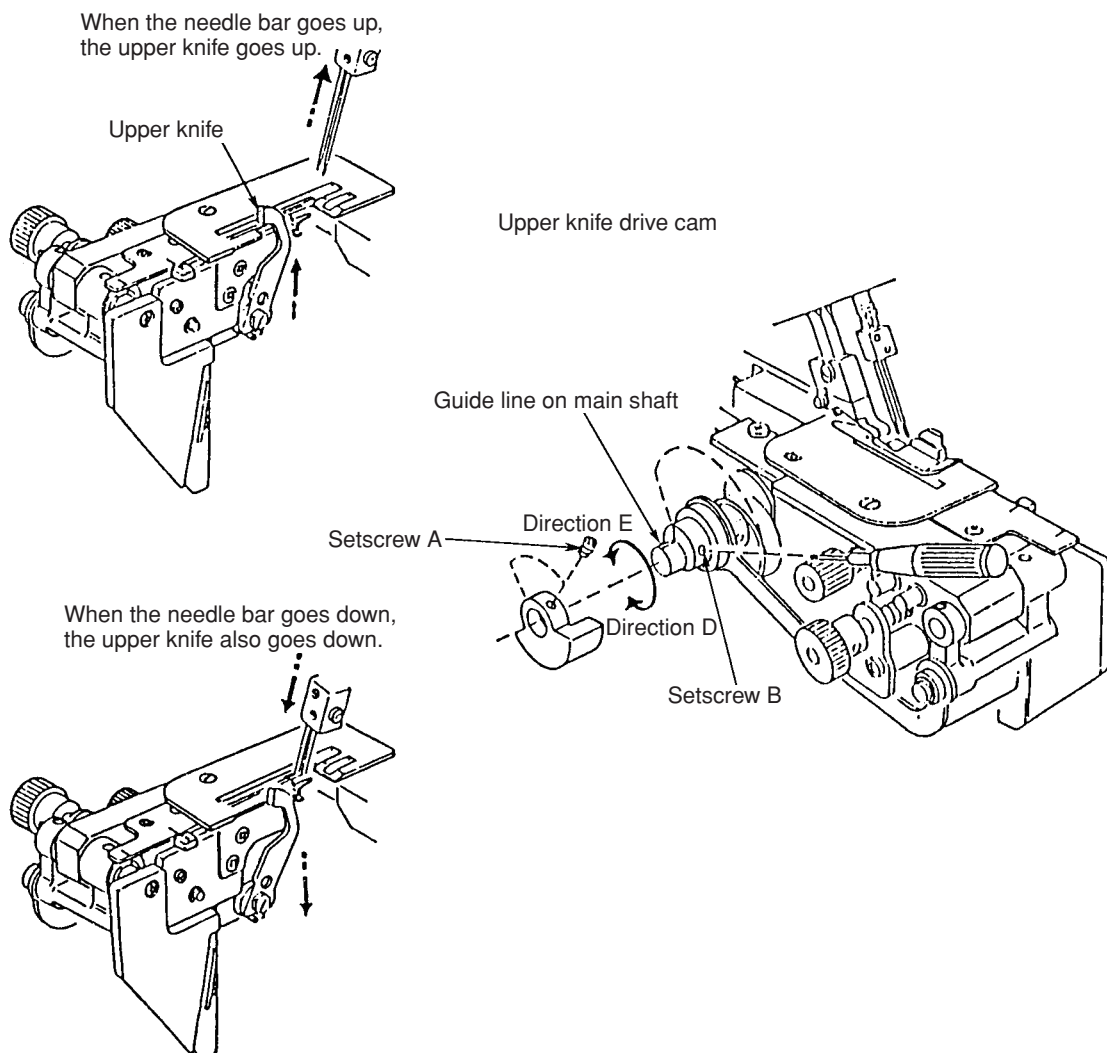
# TO ADJUST THE NEEDLE AND THE UPPER KNIFE TIMING

## Correct Setting:

The upper knife timing is the same as that of the needle bar. In fact, when the needle bar is at its highest position the upper knife should be also at its highest position.

## To adjust:

1. Remove the cover plate.
2. Loose the two setscrews A and remove the balance weight.
3. Loose the two setscrews B, and adjust the needle and upper knife timing.
  - \* Turn the upper knife drive cam to the direction D when the upper knife timing is being delay.
  - \* Turn the upper knife drive cam to the direction E when the upper knife timing is too soon.
4. Tighten the two setscrew B firmly. Attach the balance weight and set to guide line on the balance weight is in line with the one on main shaft and tighten two setscrew A.
5. Turn the balance wheel toward you one cycle, and recheck the needle and the upper knife timing.
6. Attach the cover plate.





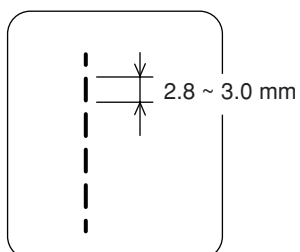
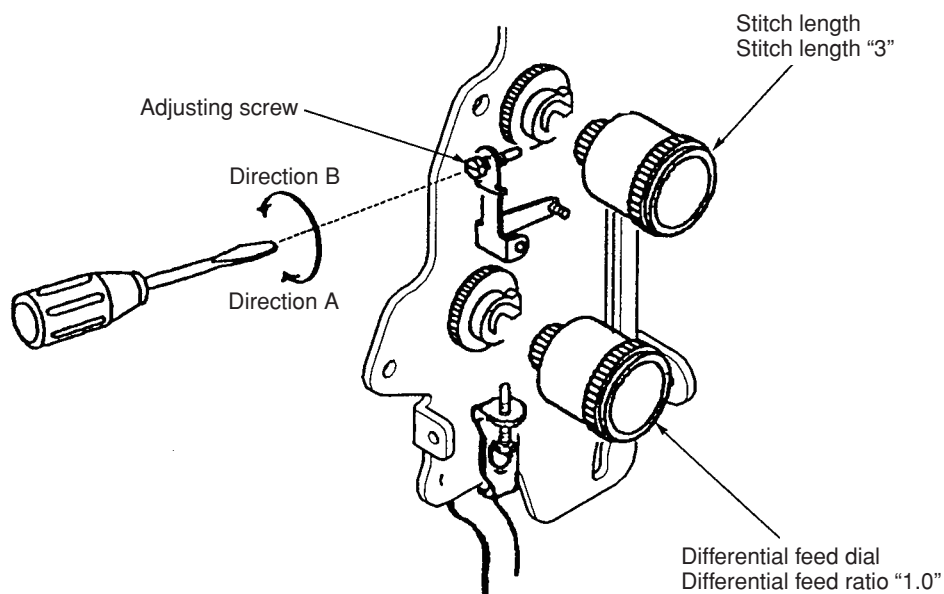
# TO ADJUST THE STITCH LENGTH

## Correct Setting:

The actual stitch length should be 2.8~3.0 mm when the stitch dial is set at "3".

## To adjust:

1. Set the stitch length dial at "3" and the differential feed dial at "1.0".
2. Remove the face plate unit, belt cover unit, tension cover unit and panel cover unit.
3. If the actual stitch length is larger than 3.0 mm, turn the adjusting screw in the direction A.  
If the actual stitch length is smaller than 2.8 mm, turn the adjusting screw in the direction B.
4. Attach the panel cover unit, tension cover unit, belt cover unit and face plate unit.



# TO ADJUST THE CLEARANCE BETWEEN NEEDLE AND LOWER LOOPER / NEEDLE GUARDS

## Correct Setting:

When using A #11 needle, when the tip of the lower looper comes from the left just behind the needle on the left or right, the clearance between both needles and the lower looper should be 0 to 0.05 mm, for A #14 needle, the clearance should be 0 to 0.05 mm when the needles are pushed slightly by the front needle guard. In this condition, the clearance between both needles, and the rear needle guard should be 0 to 0.2 mm.

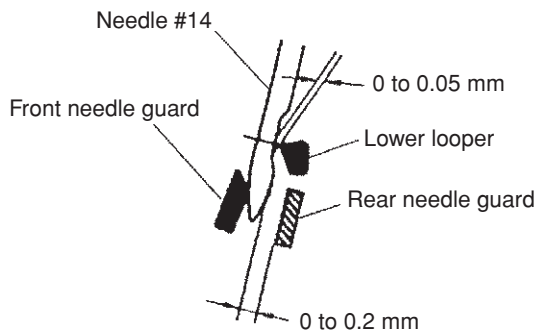
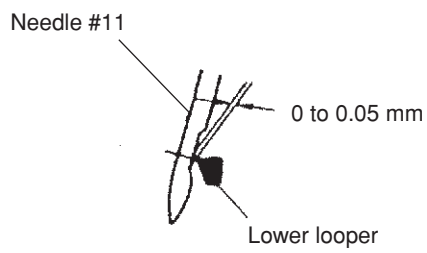
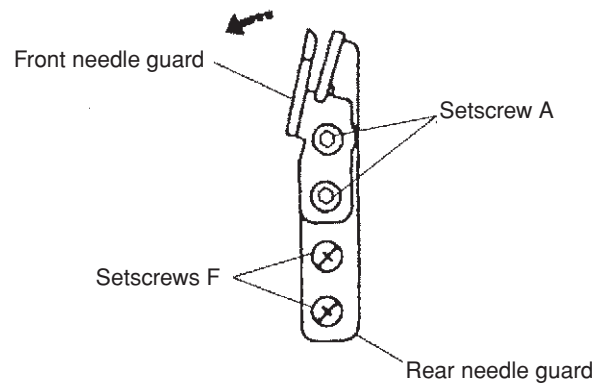
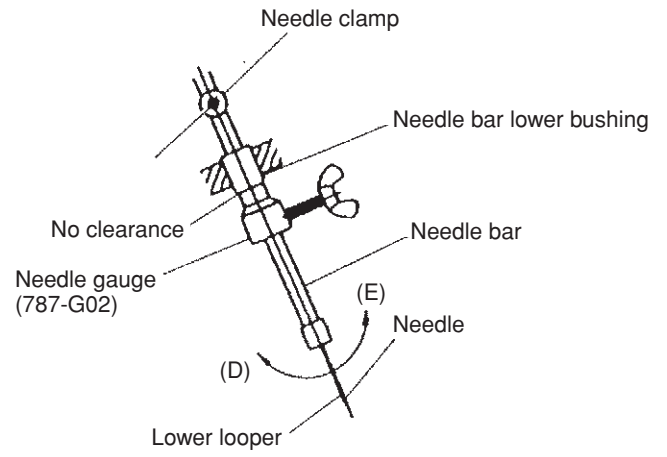
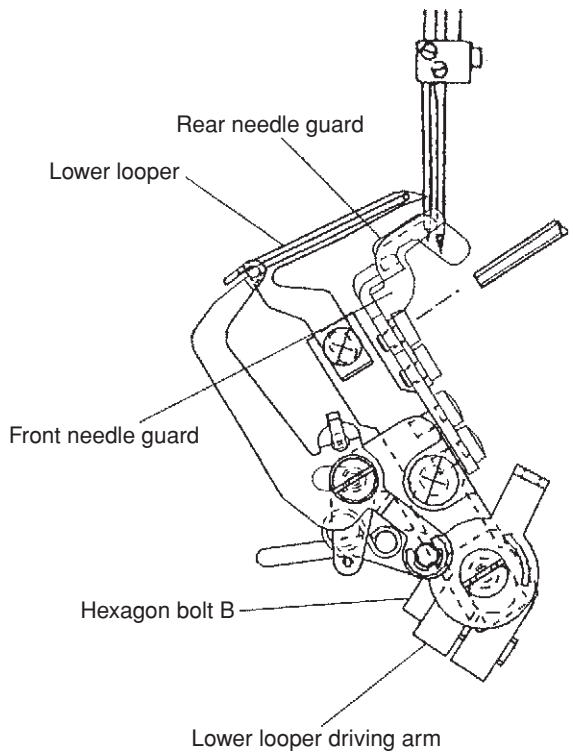
## To adjust:

1. Remove the face plate unit, presser foot, needle plate and needles. Insert A #11 needle on the right.  
\* To replace A needle, loosen the two screws on the needle clamp.
2. Turn the handwheel toward you to bring the tip of the lower looper just behind the needle from the left.
3. Loosen the two setscrews A, move front needle guard toward you to get clearance between the front needle guard and the needle.
4. In this condition, the clearance between the right needle and lower looper should be 0 to 0.05 mm. If not, loosen hexagon bolt B just enough to move the lower looper driving arm. Move it backward or forward to get the proper clearance between lower looper and needle, tighten hexagon bolt B firmly.
5. Insert A #11 needle the left.
6. Turn the balance wheel toward you to bring the tip of the lower looper just behind the needle on the left from the left.
7. Clearance between left needle and lower looper should be 0 to 0.05 mm. If not, set the needle gauge (787-G02) as shown. Loosen set screw C and turn the needle bar in direction D or E to get proper clearance between left needle and lower looper.  
Tighten setscrew C firmly.
8. Remove the gauge.  
\* There should be no clearance between the needle bar lower bushing and the gauge.

## To adjust the position of the front needle guard:

9. Replace both #11 needles with #14 needles.
10. Push the front needle guard slightly to adjust the clearance between the #14 needles and the lower looper to 0 to 0.05 mm. Tighten setscrew A.  
Note: No need to adjust the position of rear needle guard.
11. Check the lower looper timing.
12. Check the clearance between loopers.
13. Attach the face plate unit, the needle plate and presser foot.

Illustrations are shown on the following page



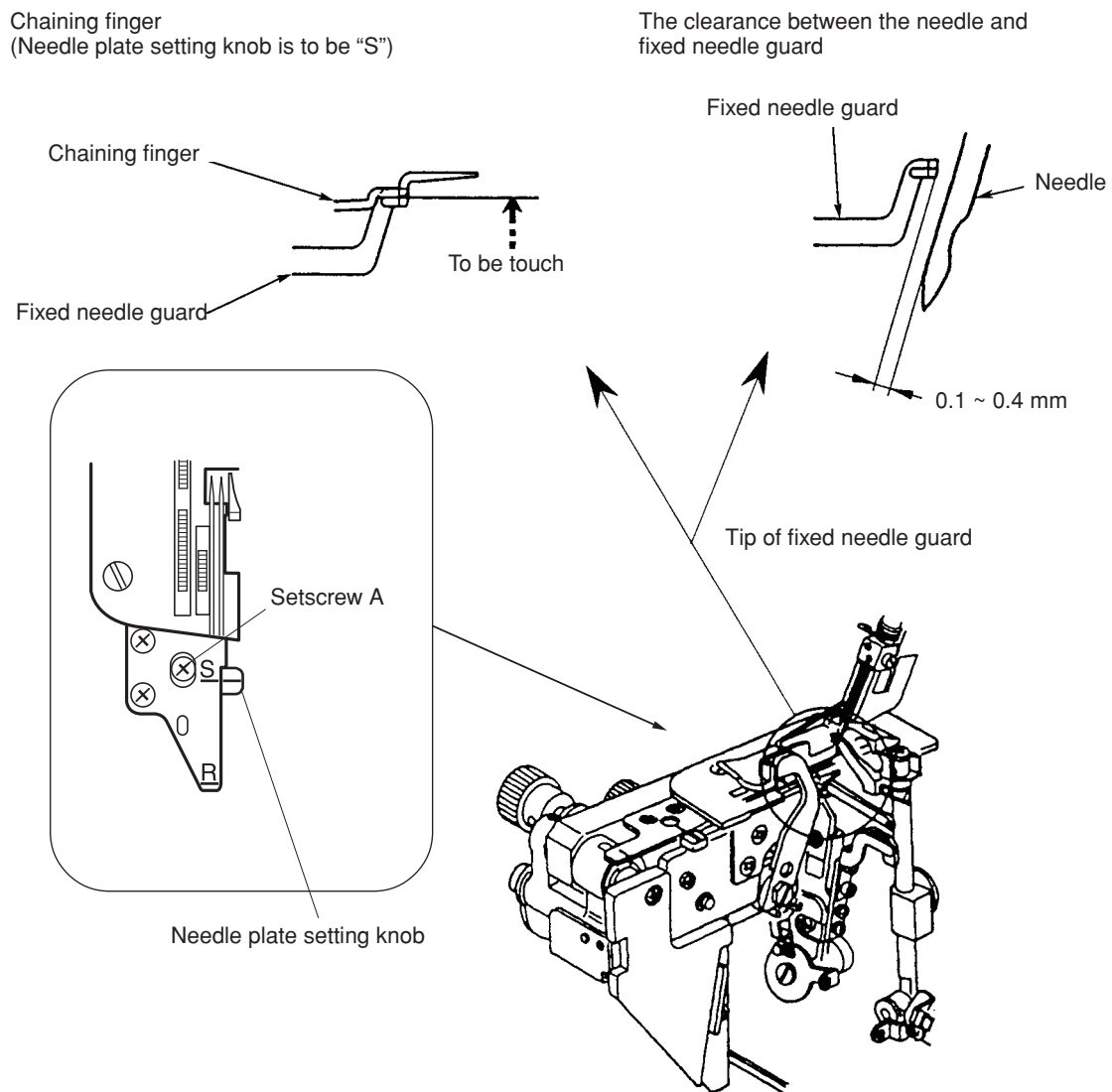
# TO ADJUST THE CLEARANCE BETWEEN NEEDLES AND FIXED NEEDLE GUARD

## Correct Setting:

The clearance between needle and the fixed needle guard should be 0.1 to 0.4 mm.

## To adjust:

1. Remove the foot and the needle plate and lower the needle to its lowest position.
2. Loosen the setscrew A and adjust the position of the fixed needle guard.
3. Tighten the setscrew A.
4. Attach the needle plate and the foot.



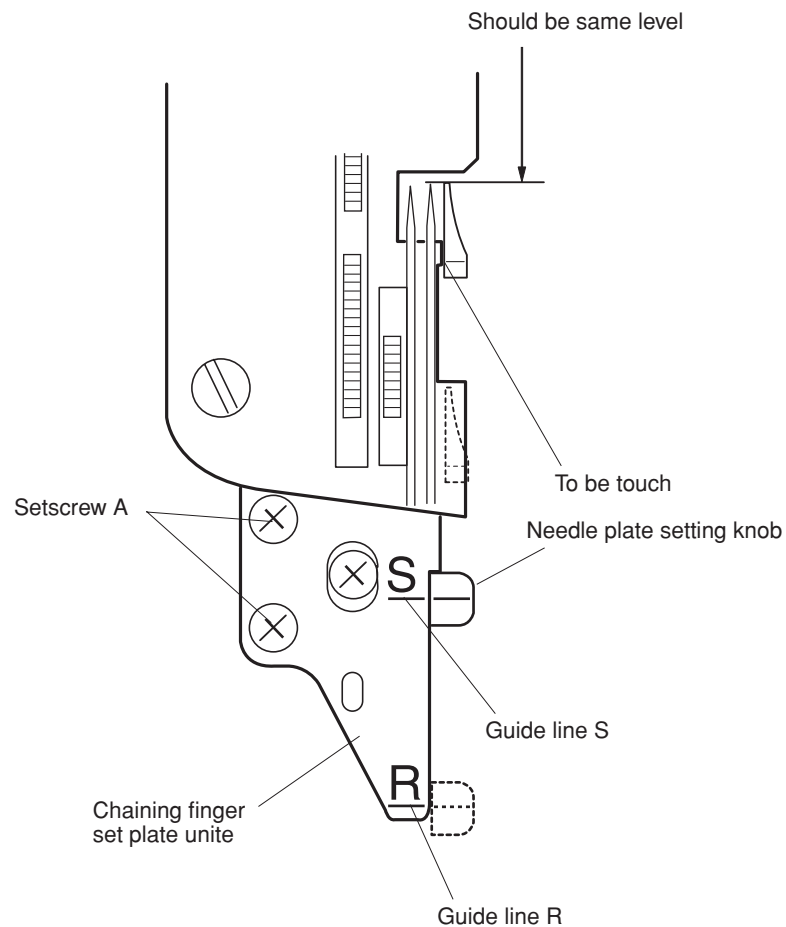
# TO ADJUST THE POSITION OF CHAINING FINGER

## Correct Setting:

When set the needle plate setting knob to guide line S, chaining finger should be touch to side of needle plate and tip of chaining finger should be same level to tip of needle on needle plate.

## To adjust:

1. Remove the presser foot.
2. Set the needle plate setting knob to guide line S on needle plate.
3. Loosen two (2) setscrews A, and move chaining finger unit to correct position.
4. Tighten two (2) setscrews A.
5. Set the needle plate setting knob to guide line S and R on needle plate, and check the position of chaining finger set plate unit.
6. Attach the presser foot.



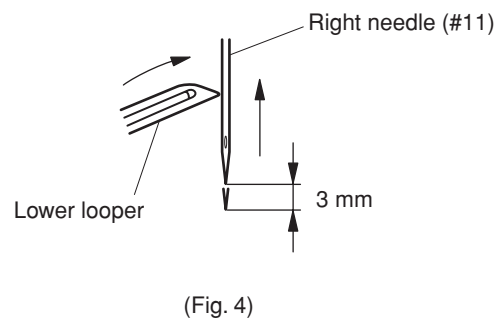
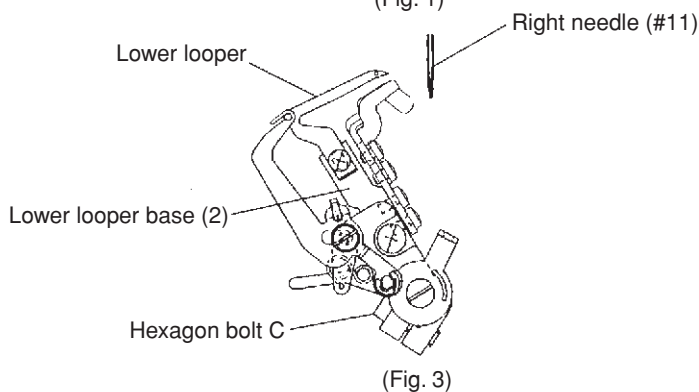
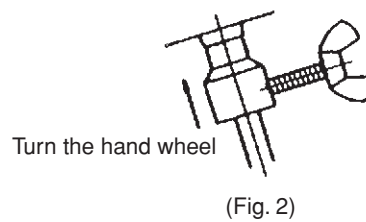
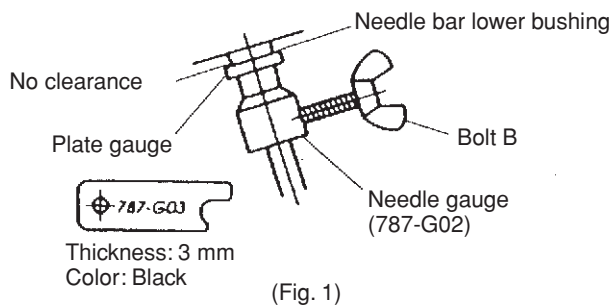
# TO ADJUST THE NEEDLE AND THE LOWER LOOPER TIMING

## Correct Setting:

When the needle comes up 2.8 to 3.2 mm (7/64 to 1/8") from its lowest position, the tip of the lower looper comes just left of the needle on the right.

## To adjust:

1. Remove the presser foot, needle plate and left-side needle.
2. Replace right-side needle with a #11 one.
3. Turn the handwheel toward you to get the lowest needle position.
4. Set the two gauges (787-G02, 787-G03), as in (Fig. 1) and tighten bolt B.
  - \* This time, there should be no clearance between the gauges and the needle bar lower bushing.
5. Remove plate gauge (787-G03). Then turn handwheel toward you until it touches the needle bar lower bushing, as in (Fig.2)
6. In this condition, loosen the hexagon bolt C just enough to move the lower adjust the lower looper base (2). Adjust the lower looper position in order to meet the tip of lower looper with left-side of needle (#11). Tighten hexagon bolt C, as in (Fig.3) and (Fig.4).
7. Remove the gauge (787-G02).
  - \* Check the clearance between the needle and lower looper.
  - \* Check the clearance between the loopers.
8. Replace the right side needle with a #14 one.
9. Attach the needle, needle plate and presser foot.
  - \* Be careful not to tighten bolt B too much.



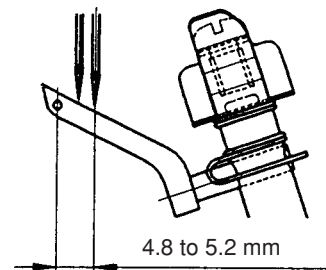
# TO ADJUST THE POSITION OF UPPER LOOPER

## Correct Setting:

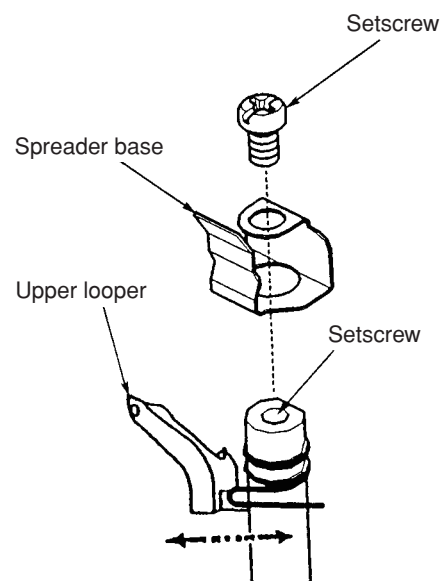
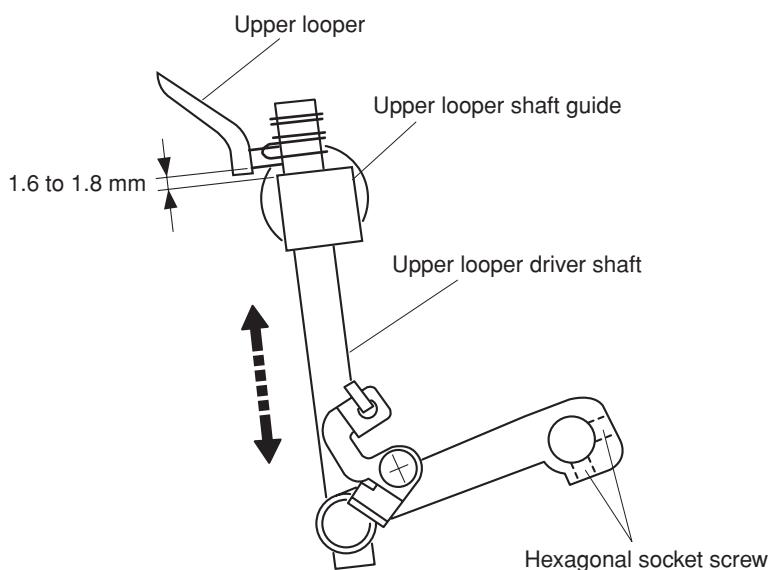
When the upper looper is at the leftmost position, the distance between the center of needle on the right and the center of looper eye should be 4.8 to 5.2 mm.

## To adjust:

1. Remove the base plate.
2. Make sure that the marking- off line on the upper looper drive cam is in line with the one on the main shaft.
3. Loose the hexagonal socket screw, and adjust the distance between upper looper shaft guide and bottom of upper looper. The distance should be 1.6 to 1.8 mm when the upper looper is at the lowest position as show in Fig.1.
4. Tighten the hexagonal socket screw. Be careful not to tighten too much, otherwise the upper looper driving arm will be cracked.
5. Turn the balance wheel and bring the upper looper to the leftmost position.
6. Loose the hexagon socket screw, and adjust the distance between the center of needle and center of upper looper eye as shown in Fig.2 and Fig.3.
7. Tighten the hexagon socket screw.
8. Check the upper and lower loopers timing and clearance between upper and lower loopers.



(Fig. 2)



(Fig. 3)

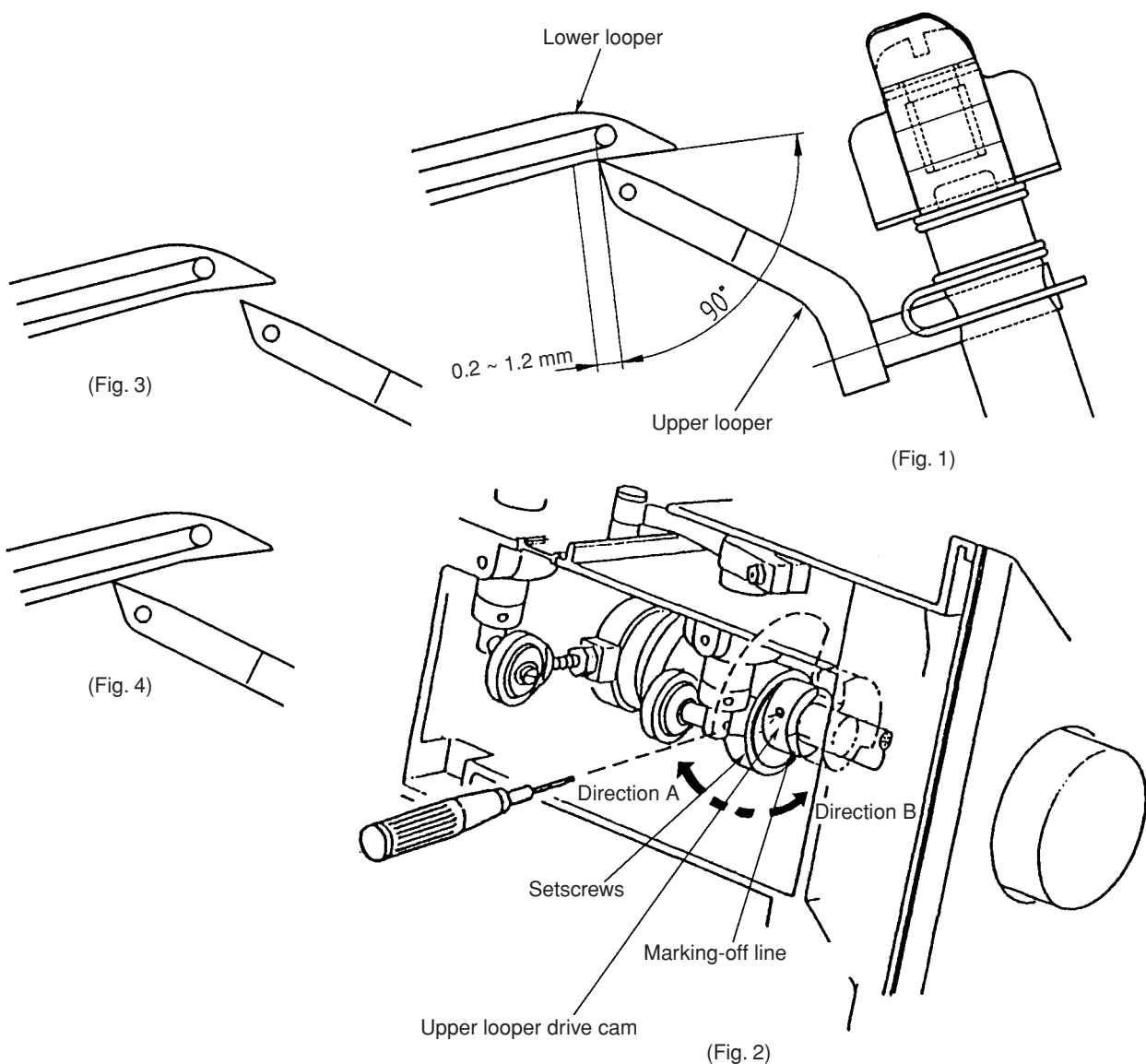
# TO ADJUST THE UPPER & LOWER LOOPERS TIMING

## Correct Setting:

When lower looper moves to the right, the lower looper meets the upper looper within 1 mm from the left of lower looper eye at a right angle as shown in Fig.1.

## To adjust:

1. Before proceeding with this adjustment, check the lower looper timing and the position of upper looper.
2. Remove the base plate.
3. Loosen the two setscrews, and adjust the timing by turning the upper looper drive cam in the direction of:  
A: If the timing of upper looper is advanced as shown in Fig.3.  
B: If the timing of upper looper is delayed as shown in Fig.4.
4. Tighten the two setscrews.
5. Check the clearance between the loopers.
6. Attach the base plate.





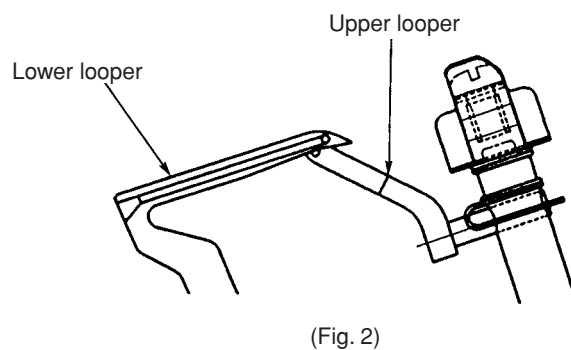
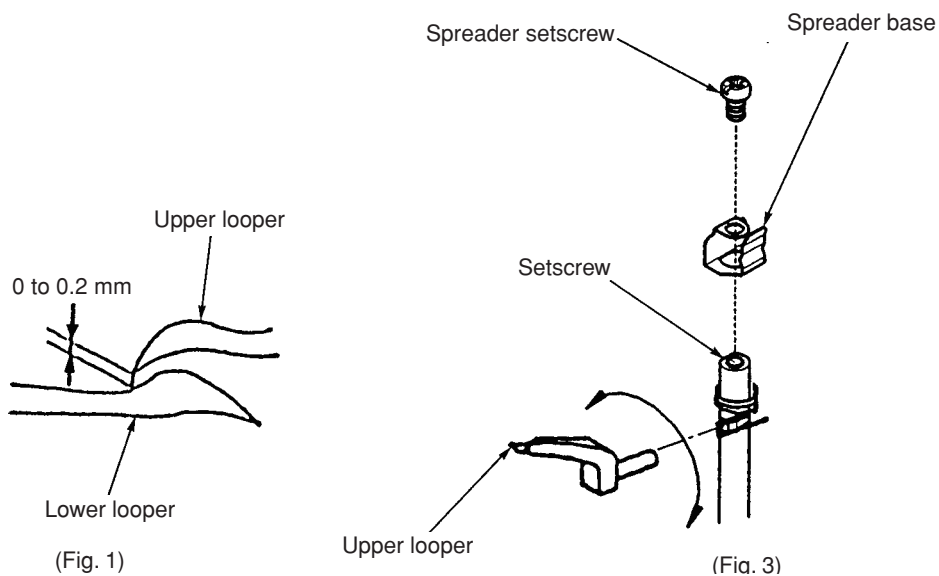
# TO ADJUST THE CLEARANCE BETWEEN LOOPERS

## Correct Setting:

When the loopers meet as shown in Fig.2, the clearance should be 0 to 0.2 mm as shown in Fig.1.

## To adjust:

1. Remove the spreader setscrew and the spreader base.
2. Turn the balance wheel toward you with your hand to bring the loopers as shown in Fig.2.
3. Loosen the setscrew, and adjust the clearance by moving the upper looper to the back or front as shown in Fig.3.
4. Tighten the setscrew firmly.
5. Check the clearance between the upper looper and needle.
6. Set the spreader vase and tighten the spreader setscrew.



# TO ADJUST THE CLEARANCE BETWEEN NEEDLE AND UPPER LOOPER

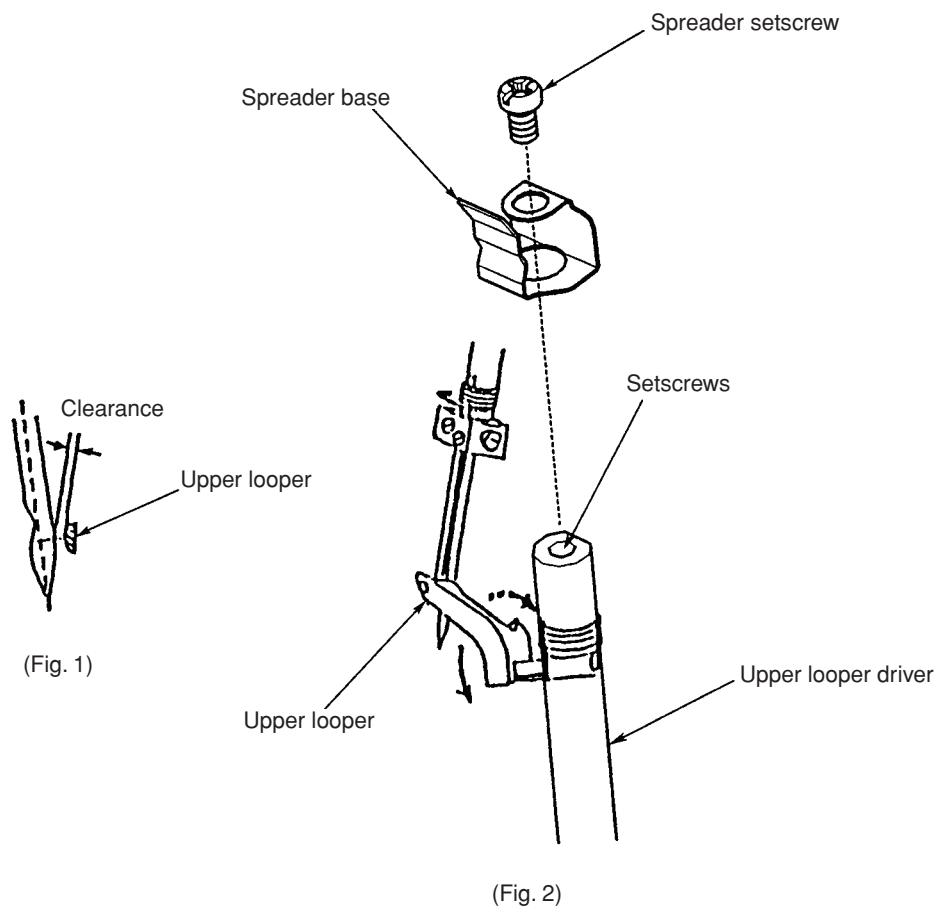
## Correct Setting:

When the upper meets with needle. Clearance should be:

- 0.1 to 0.15 mm at the needle on the left.
- 0.2 to 0.05 mm at the needle on the right.

## To adjust:

1. Turn the balance wheel toward you with your hand to bring the needle just behind the upper looper in downward travel.
2. Loose the setscrew, and adjust the clearance between the both needles and upper looper.
3. Tighten the setscrew.
4. Check the clearance between the loopers.



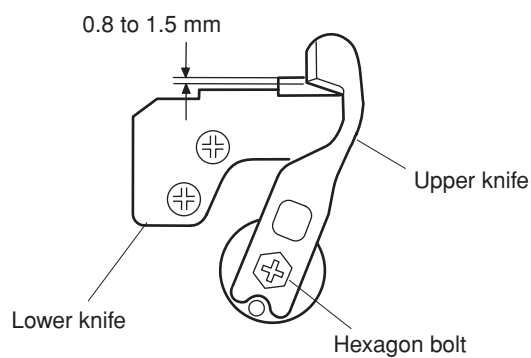
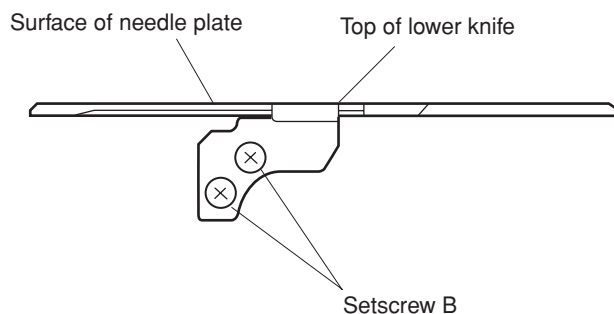
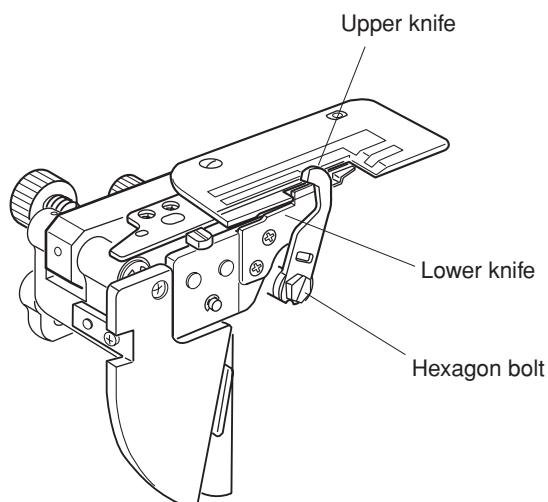
# TO ADJUST THE POSITION OF KNIVES

## Correct Setting:

The tip of the lower knife should be leveled with the surface of needle plate. When the upper knife is at the lowest position, the front lower corner of upper knife should be 0.8 to 1.5 mm below the edge of lower knife.

## To adjust:

1. Before proceeding with this adjustment, check the upper knife timing.
2. Loose the two setscrews B, and adjust the lower knife position.
3. Turn the balance wheel to bring upper knife to the lowest position.
4. Loose the hexagon bolt, and adjust the position of upper knife.
5. Tighten the hexagon bolt.



# TO ADJUST THE POSITION OF THREAD GUIDE (3)

## Thread Guide (3)

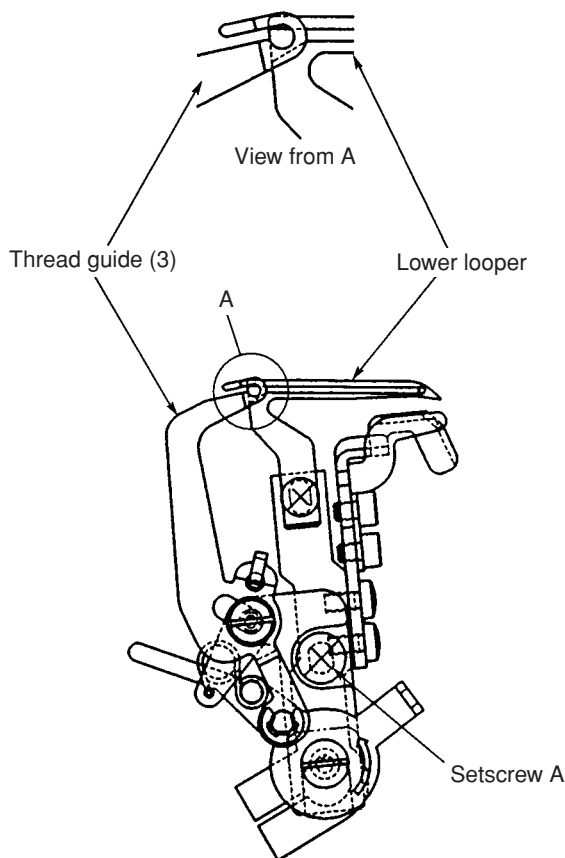
Loose the setscrew A, and adjust the thread guide (3) so that the hole of thread guide is in line with the groove of lower looper as shown in Fig.1.

## Thread Guide

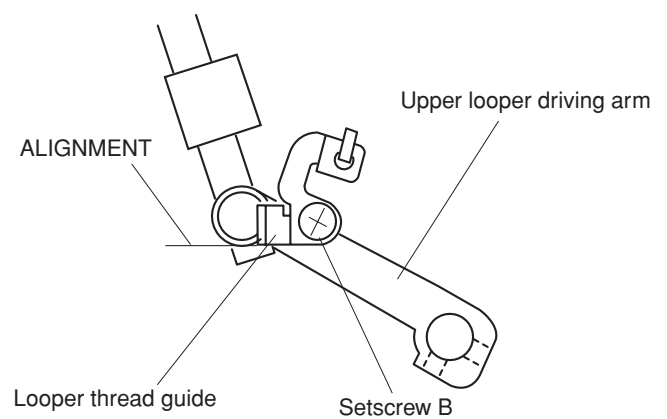
Loosen the setscrew B and set the bottom side of external on the upper looper thread guide (Fig.2) and the bottom side of external of the upper looper titubation arm C.

Tighten the setscrew B to secure the position.

The hole is in line with the groove of lower looper.



(Fig. 1)



(Fig. 2)

# TO ADJUST THE THREAD TENSION DIAL

## Correct Setting:

When each dial is set at “3” and No. 50 polyester filament thread is used, the thread tension should be as follows;

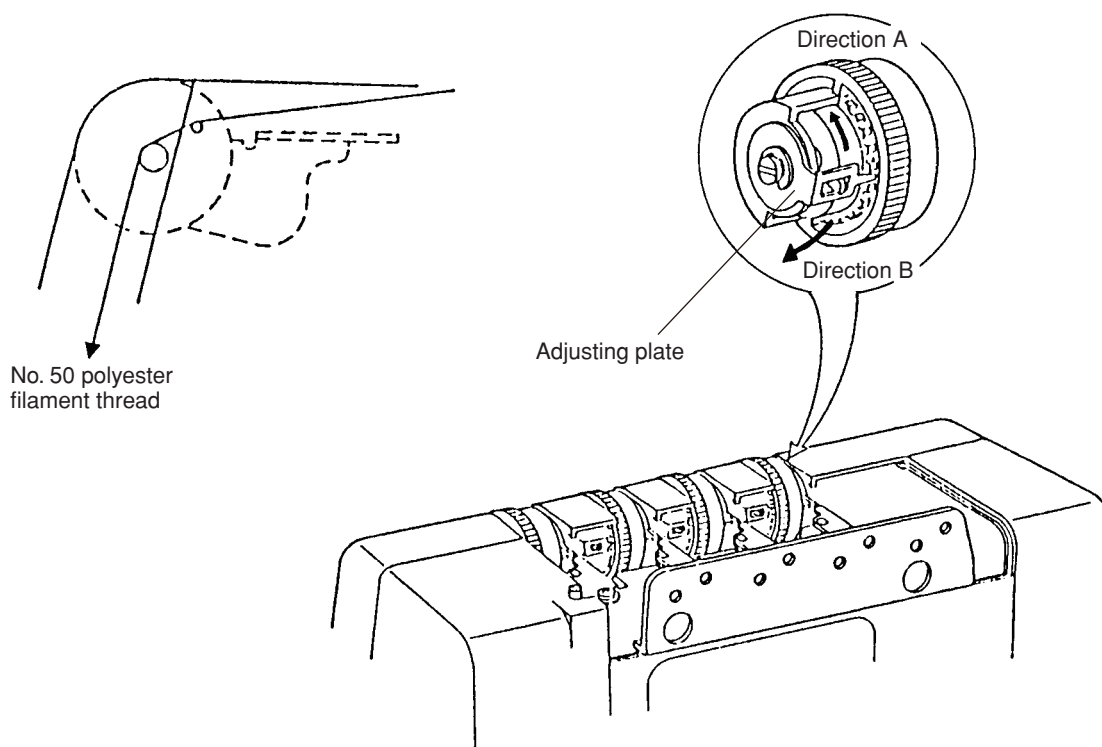
Needle (Left)	: 25 ~ 35 g
Needle (Right)	: 15 ~ 25 g
Upper looper	: 10 ~ 20 g
Lower looper	: 20 ~ 30 g

When each dial is set at “9” and No. 50 polyester filament thread is used, the thread tension should be as follows;

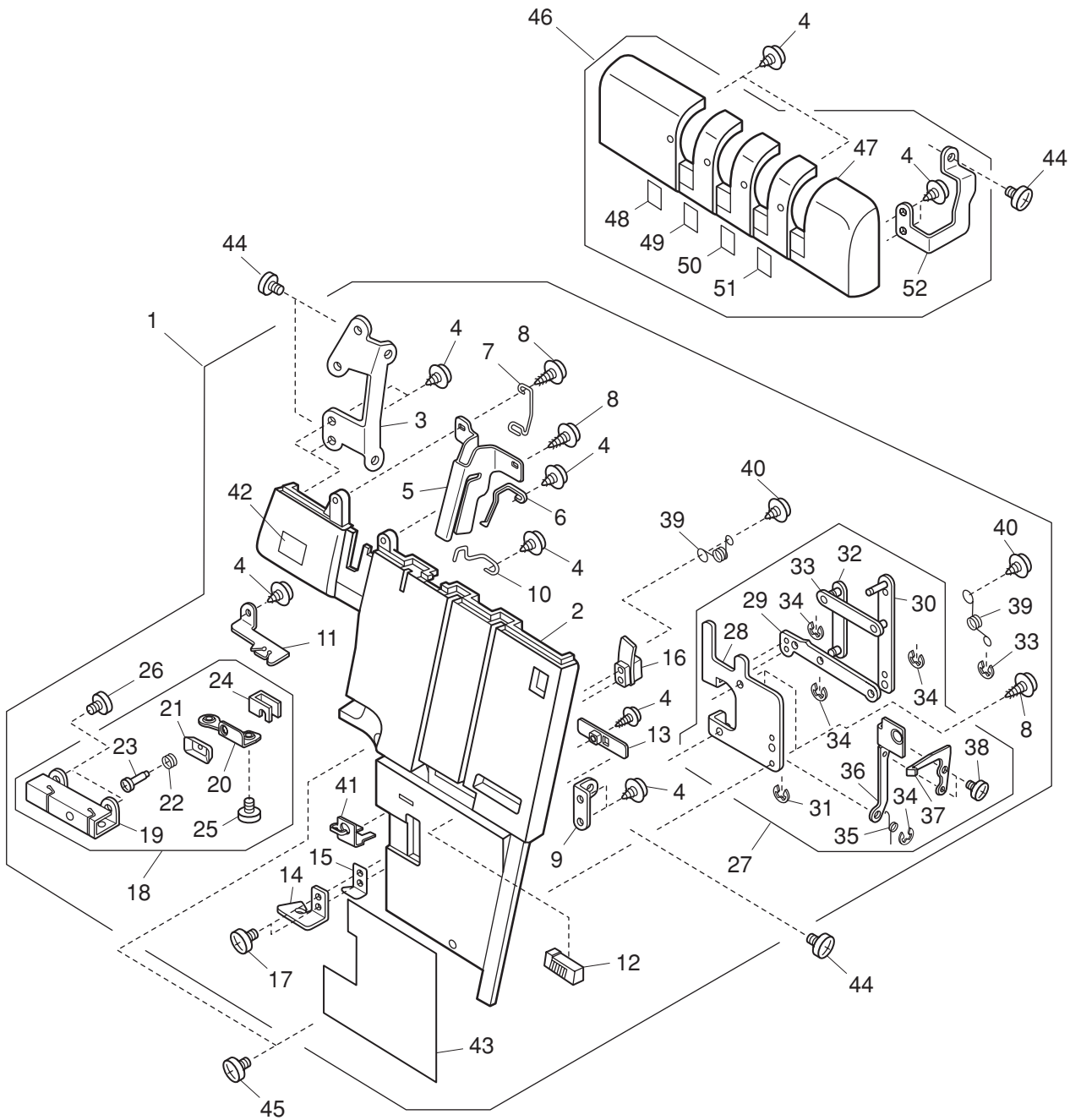
Needle (Left)	: 125 g or more
Needle (Right)	: 60 g or more
Upper looper	: 55 g or more
Lower looper	: 120 g or more

## To adjust:

1. Remove the top cover unit.
2. Match the scale “3” on the thread tension dial with the notch in the thread tension regulating plate.
3. Adjust each thread tension with the adjusting plate.
  - \* If the thread tension is higher than the above level, shift the adjusting plate in the direction A.
  - \* If the thread tension is lower than the above level, shift the adjusting plate in the direction B.
4. Match the scale “9” with the notch, and check if each thread tension is as specified.
5. Attach the top cover unit.



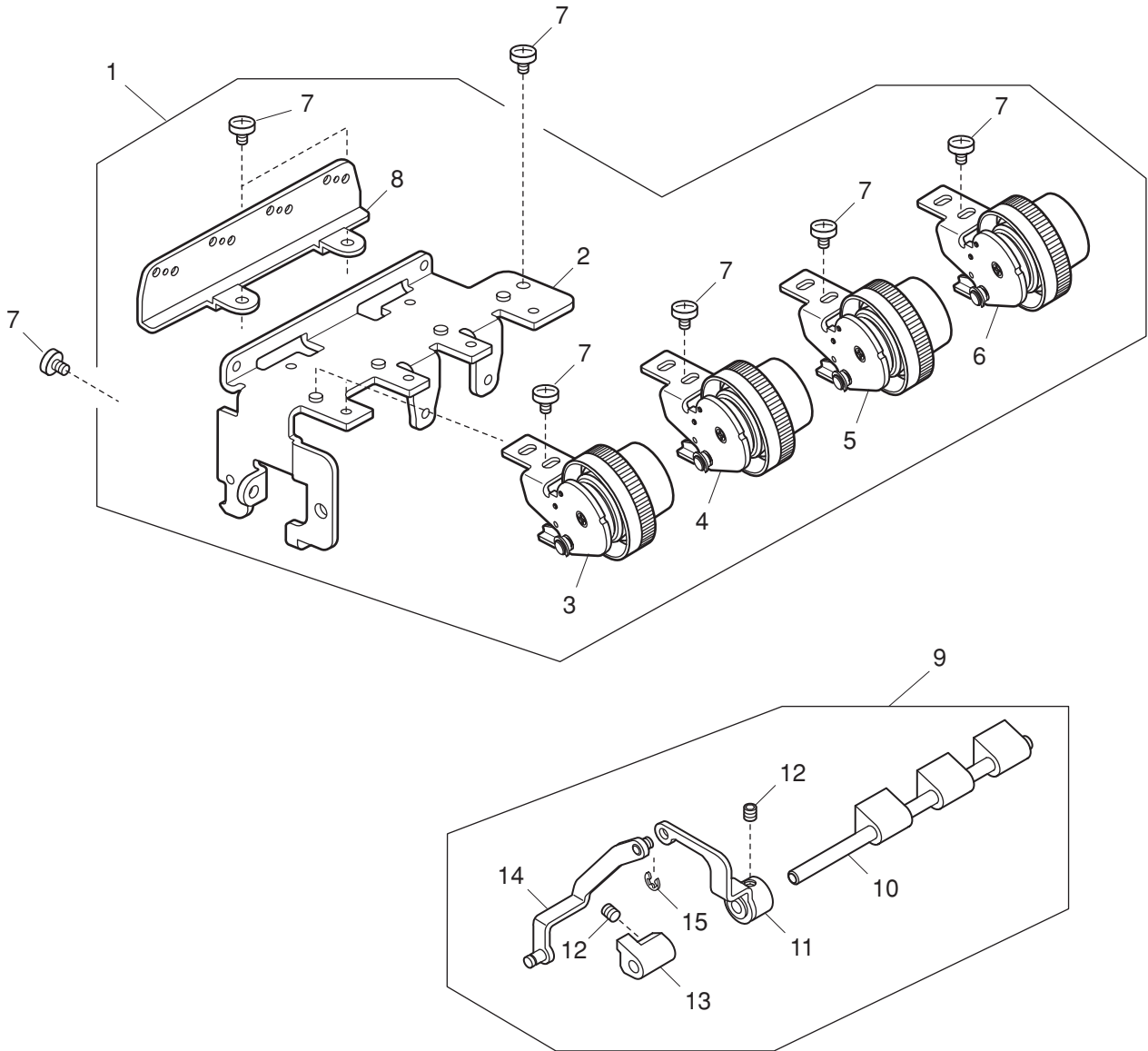
# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788614408	Panel cover (unit)
2	788057201	Panel cover
3	788058006	Panel set plate
4	000149301	Setscrew 3x8 (B)
5	788059007	Thread take-up lever cover
6	788060001	Threader guide (right)
7	788061002	Threader guide (left)
8	000149002	Setscrew 3x10 (B)
9	788099009	Panel cover set plate
10	788062003	Needle thread guide
11	788063004	Needle thread guide plate
12	788064108	Slider
13	788065006	Slider set plate
14	788066007	Thread guide
15	788094004	Thread guide spring
16	788067008	Thread guide set plate
17	000104913	Setscrew 3x16
18	788615007	Looper thread guide (unit)
19	788068009	Looper thread guide
20	788069000	Sub thread tension set plate
21	788070004	Sub thread tension plate
22	788071005	Sub thread tension spring
23	788072006	Thread tension shaft
24	788092002	Thread tension screw set plate
25	000101116	Setscrew 3x4
26	000078319	Setscrew 3x6
27	788616101	Sub thread tension holding plate (unit)
28	788074008	Sub thread tension holding plate
29	788075009	Thread tension connecting link (1)
30	788076000	Thread tension connecting link (2)
31	000002507	Snap ring E-4
32	788077001	Thread tension connecting link (3)
33	788129009	Thread tension connecting link (4)
34	000002105	Snap ring E-3
35	788073007	Thread tension release spring
36	788078002	Thread tension release plate (1)
37	788079003	Thread tension release plate (2)
38	000101105	Setscrew 3x4
39	788081008	Spring
40	000109402	Setscrew 3x8
41	787131001	Upper looper thread guide
42	888261007	Sticker
43	788090000	Threading chart
44	000101404	Setscrew 4x6
45	000103417	Setscrew 4x8
46	788617043	Tension cover (unit)
47	788082973	Tension cover
48	787143051	Seam guide (left looper)
49	787143154	Seam guide (right needle)
50	787143257	Seam guide (upper needle)
51	787143350	Seam guide (lower looper)
52	788083000	Tension cover set plate (right)

# PARTS LIST

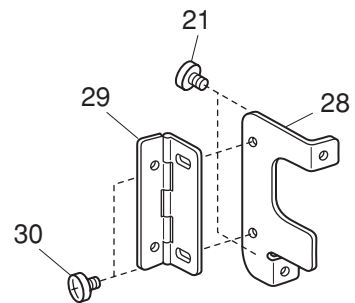
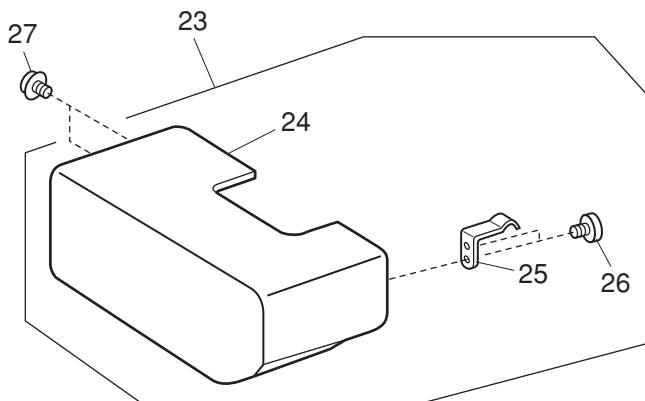
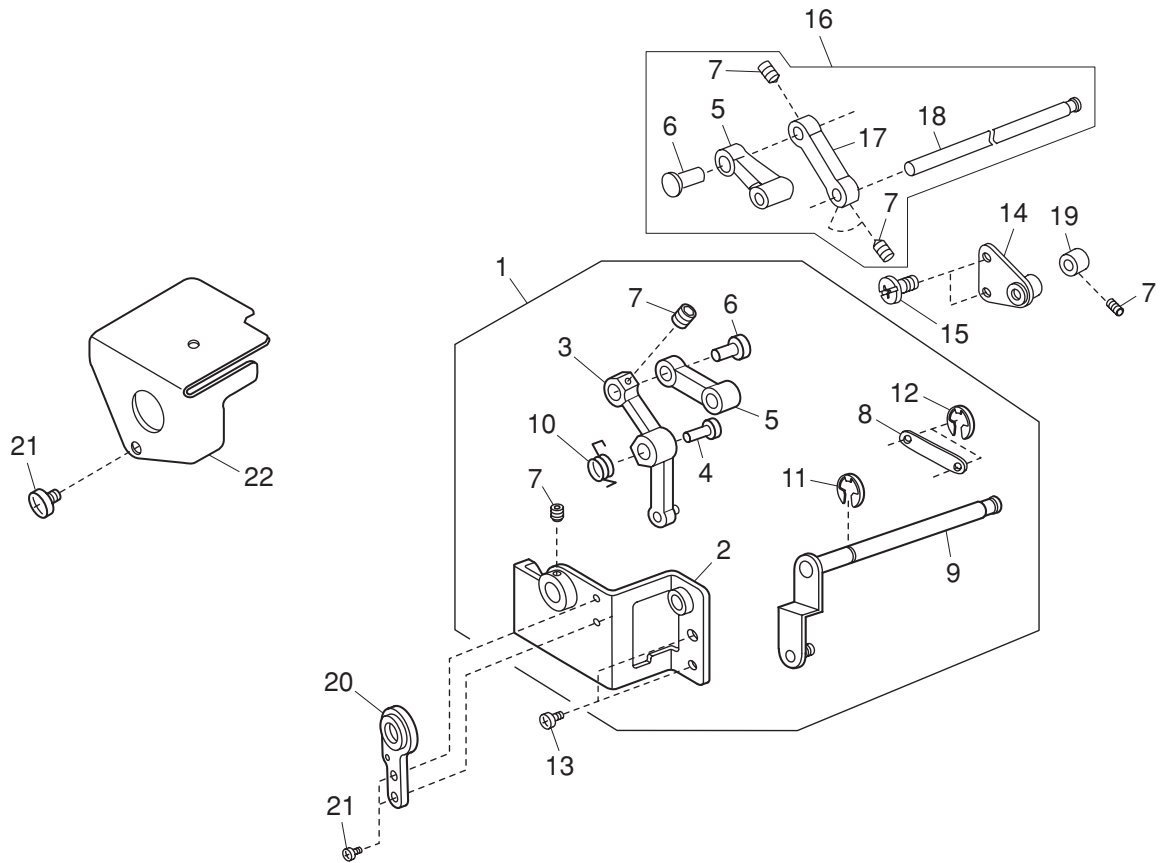




# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788612037	Thread tension dial set plate (unit)
2	788049004	Thread tension dial set plate
3	788503023	Left needle thread tension dial (unit)
4	788504024	Right needle thread tension dial (unit)
5	788505025	Upper looper thread tension dial (unit)
6	788506026	Lower looper thread tension dial (unit)
7	000101404	Setscrew 4x6
8	787129006	Tension thread guide plate
9	793611009	Thread tension release shaft (unit)
10	793127003	Thread tension release shaft
11	788055003	Thread tension link
12	000111201	Hexagonal socket screw 4x4
13	788056004	Cam link
14	788089006	Thread releasing lever
15	000002105	Snap ring E-3

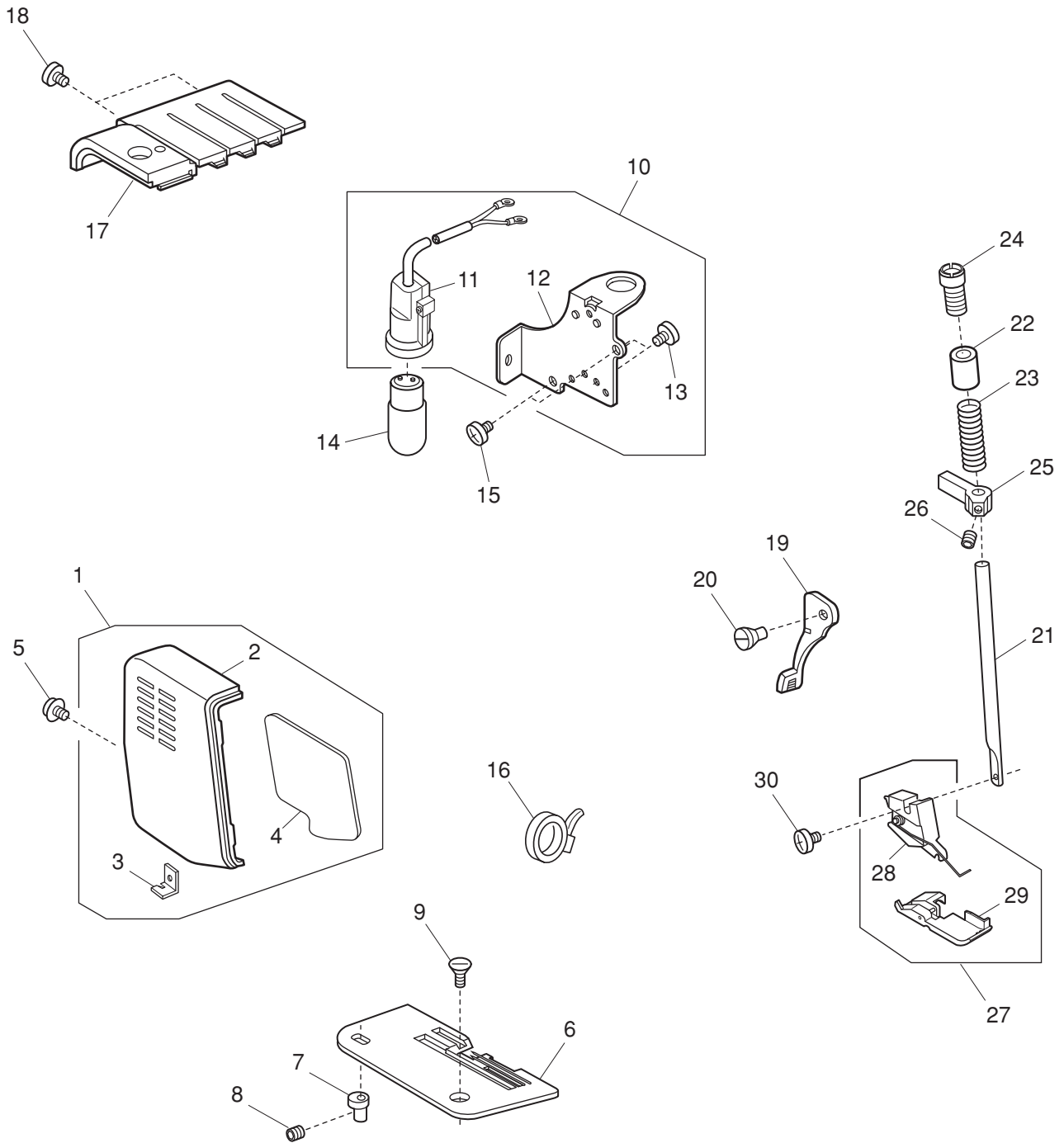
# PARTS LIST



## PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	792611305	Feed adjusting base (unit)
2	793119105	Feed adjusting base
3	787194002	Sub feed connecting arm 3
4	787195014	Connecting arm pin
5	787067005	Feed link
6	787195003	Feed connecting pin
7	000111201	H. socket screw 4x4
8	787081005	Feed connecting arm link
9	792034401	Sub feed connecting shaft
10	798059008	Connecting arm spring
11	000001609	Snap ring E-5
12	000002105	Snap ring E-3
13	000103509	Setscrew 4x10
14	787077008	Connecting arm supporter
15	810220003	Setscrew 4x6.5
16	787637002	Main feed connecting arm 2 (unit)
17	787197005	Main feed connecting arm 2
18	787198006	Main feed connecting shaft
19	650136009	Ring
20	793118001	Main shaft supporter
21	000081005	Setscrew 4x8
22	789030005	Cover plate
23	787628000	Side cover (unit)
24	787161011	Side cover
25	787163002	Spring
26	000120203	Setscrew 3x8 (B)
27	000115618	Setscrew TP 4x8
28	787165004	Hinge
29	787507002	Side cover hinge (unit)
30	000101404	Setscrew 4x6

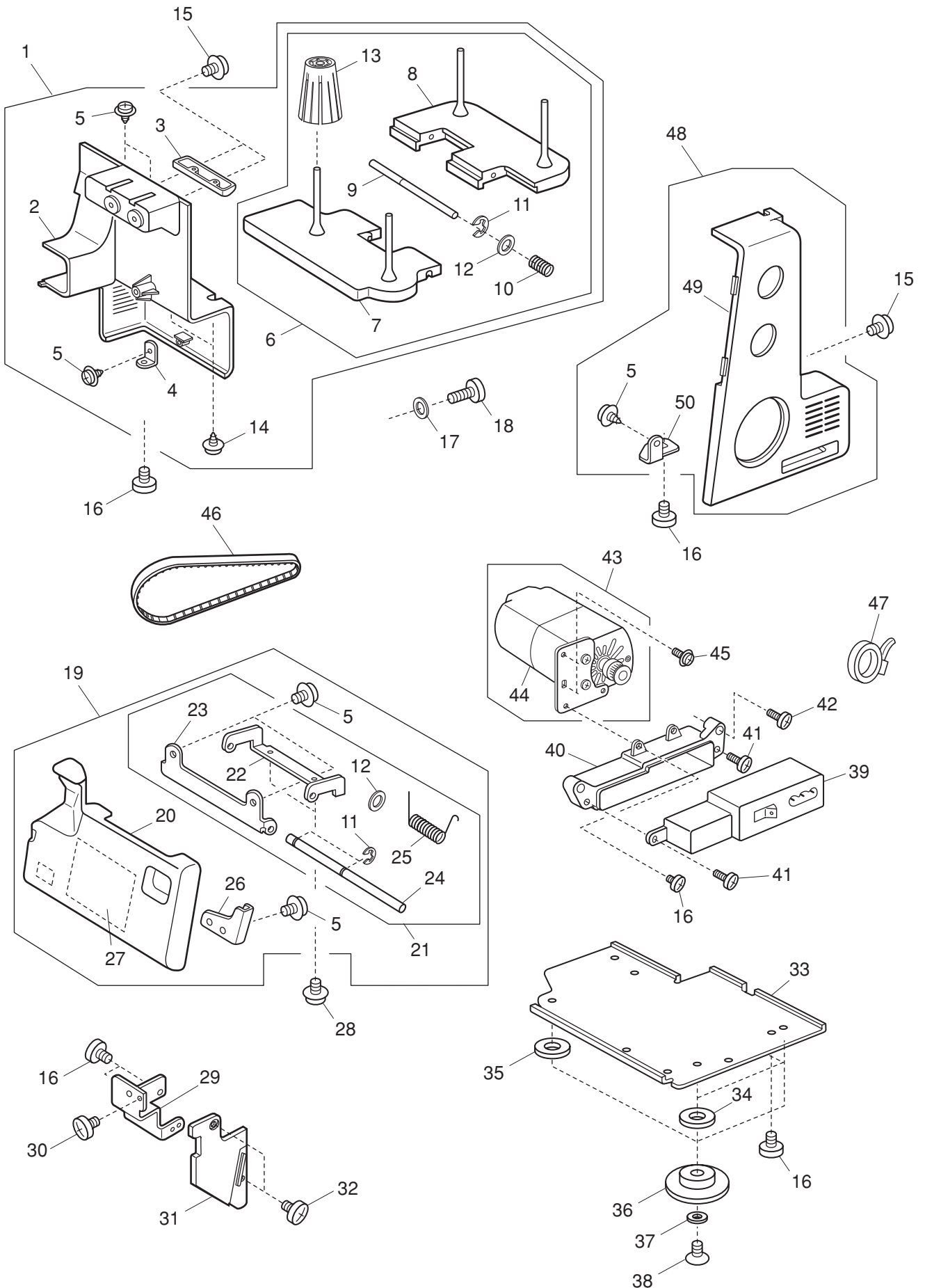
# PARTS LIST



## PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	787608004	Face plate (unit)
2	787030009	Face plate
3	840602006	Thread cutter (unit)
4	787031000	Reflecting sticker
5	000115700	Setscrew
6	788601000	Needle plate (unit)
7	789100007	Eccentric pin
8	000111902	Hexagonal socket screw 3x4
9	681009101	Flat head set screw
10	791620108	Lamp socket (unit)
11	655681456	Lamp socket
12	789105002	Lamp socket set plate
13	000120203	Setscrew 3x8 (B)
14	000009009	Lamp 240V 15W
15	000101404	Setscrew 4x6
16	000053008	Cord binder
17	787160009	Top cover
18	000103417	Setscrew 4x8
19	650032015	Presser bar lifter
20	810431009	Hinge screw
21	787019002	Presser bar
22	777002001	Bushing
23	787020006	Presser bar spring
24	777013108	Presser adjusting screw
25	789117007	Presser bar bracket
26	000111304	Hexagonal socket screw 5x5
27	788501009	Presser foot (unit)
28	787541008	Foot holder (unit)
29	788502000	Presser foot
30	660106001	Setscrew

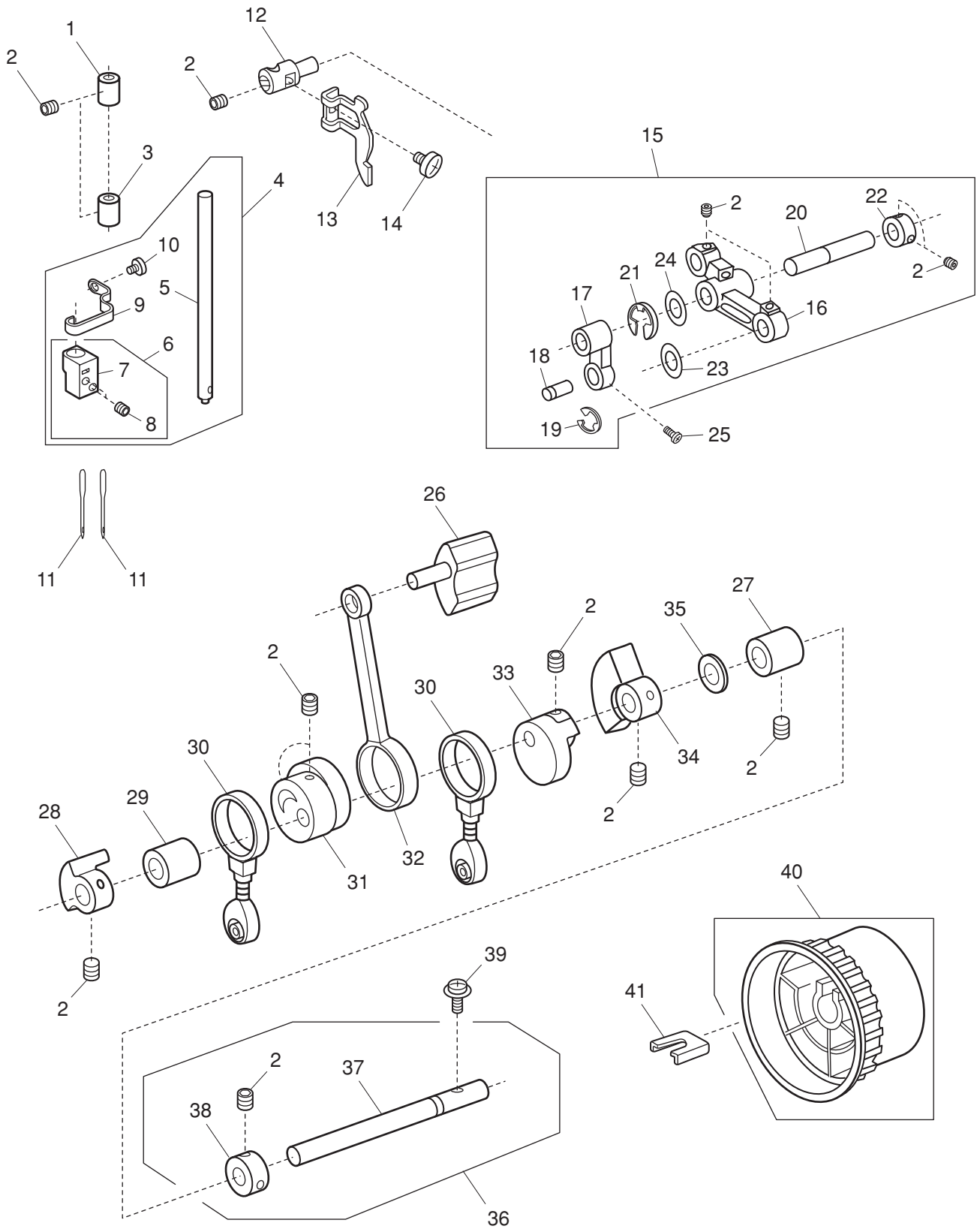
# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	787623005	Rear cover (unit)
2	787145204	Rear cover
3	787173005	Finger guard
4	787174006	Back cover set plate
5	000149301	Setscrew 3x8 (B)
6	787624006	Spool stand (unit)
7	787147000	Spool stand
8	787148001	Sub spool stand
9	787149002	Spool stand connecting pin
10	787201003	Spring
11	000002105	Snap ring E-3
12	000071013	Washer 4
13	784223105	Spool holder
14	000109309	Setscrew 3x10
15	000115618	Setscrew TP 4x8
16	000081005	Setscrew 4x8
17	000070528	Washer 4
18	000103211	Setscrew 4x30
19	787625247	Looper cover (unit)
20	787150165	Looper cover
21	787626008	Looper cover hinge (unit)
22	787151007	Looper cover supporter
23	787152008	Looper cover hinge
24	784121010	Looper cover hinge pin
25	784122000	Looper cover hinge spring
26	787181006	Looper cover set plate
27	787188003	Caution sticker
28	000115205	Setscrew TP 4x6
29	788085002	Looper cover guide set plate
30	000081016	Setscrew 4x8
31	788086003	Looper cover guide
32	000078320	Setscrew 3x6
33	787156002	Base plate
34	785260004	Washer
35	787204006	Washer (for left front leg)
36	784135006	Rubber cushion
37	000070300	Washer 5
38	784169009	Hinge screw (large)
39	777502109	Machine socket (unit)
40	784128028	Machine socket cover
41	000121905	Setscrew 4x12 (B)
42	000104108	Setscrew 4x20
43	M-2068	Motor (unit)
44	M-2068A	Motor
45	000115504	Setscrew TP 5x10
46	784124002	Timing belt
47	000053008	Cord binder
48	787627009	Belt cover (unit)
49	787157003	Belt cover
50	787158004	Belt cover set plate

# PARTS LIST

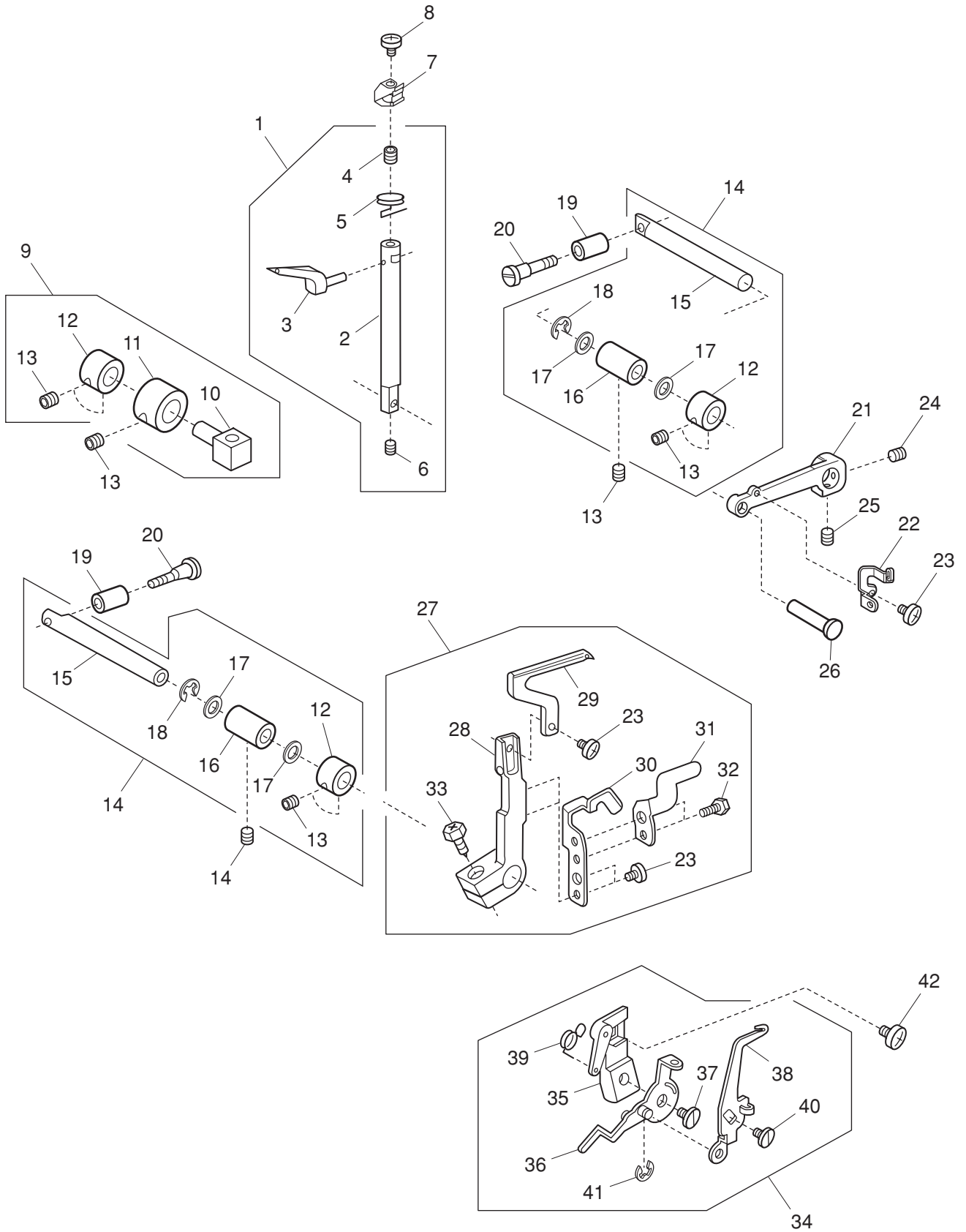




# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	784027004	Bushing
2	000111201	Hexagonal socket screw 4x4
3	784028005	Bushing
4	792601003	Needle bar (unit)
5	792001007	Needle bar
6	792501002	Needle clamp (unit)
7	792002008	Needle clamp
8	888264000	Needle setscrew
9	792003009	Needle bar thread guide
10	000078320	Setscrew 3x6
11	784157015	Needle
12	784024001	Connecting stud
13	788004007	Take-up lever
14	000078320	Setscrew 3x6
15	789612007	Needle bar crank (unit)
16	789104001	Needle bar crank
17	789007003	Needle bar link
18	784022009	Link pin
19	000001609	Snap ring E-5
20	789008004	Needle bar crank shaft
21	000002909	Snap ring E-7
22	624245001	Ring
23	000039905	Washer
24	000038502	Washer
25	000103509	Setscrew 4x10
26	789103000	Needle bar balance weight
27	784009000	Bushing
28	792037002	Balance weight (left)
29	673062004	Bushing
30	792951001	Looper cam ring (unit)
31	793121007	Needle bar cam
32	793120006	Needle bar crank rod
33	787004107	Upper looper cam
34	787176008	Balance weight (right)
35	000038605	Washer
36	787670007	Main shaft (unit)
37	787345000	Main shaft
38	619006002	Ring
39	000114802	Setscrew TP 4x12
40	786611007	Balance wheel (unit)
41	787114008	Balance wheel set plate

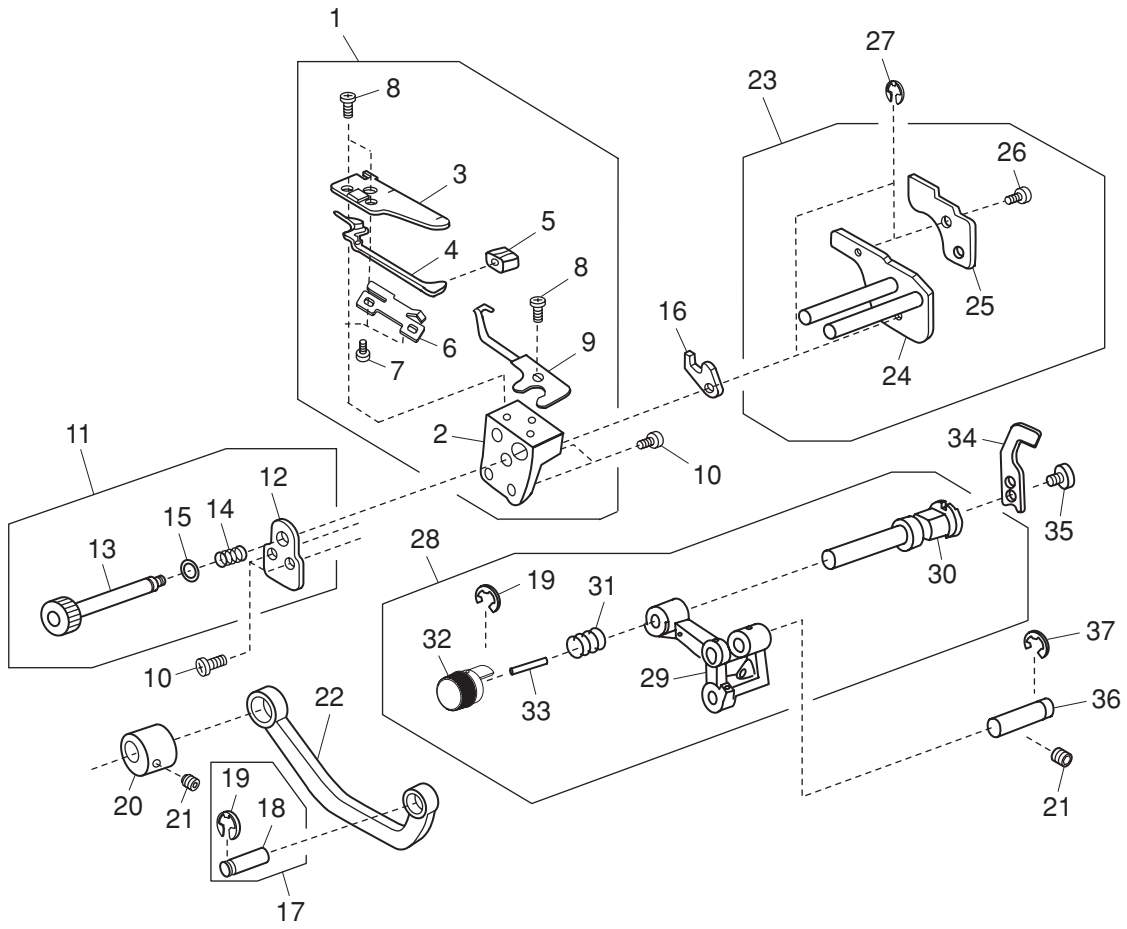
# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788609008	Upper looper shaft (unit)
2	788039001	Upper looper shaft
3	784076019	Upper looper
4	000112501	Hexagonal socket screw 4x4
5	784077009	Upper looper thread guide (3)
6	000177205	Hexagonal socket screw 3x6
7	788040005	Spreader base plate
8	788041006	Setscrew 4x6
9	792614009	Upper looper shaft guide (unit)
10	792038003	Upper looper shaft guide
11	792039004	Bushing
12	792048006	Ring
13	000111201	Hexagonal socket screw 4x4
14	792633004	Upper looper crank shaft (unit)
15	787105006	Upper looper crank shaft
16	787104005	Bushing
17	000038502	Washer
18	000002806	Snap ring E-6
19	787107101	Crank spacer
20	787108009	Crank setscrew
21	789112002	Upper looper waving arm
22	788038000	Lower looper thread guide
23	000078320	Setscrew 3x6
24	000111304	Hexagonal socket screw 5x5
25	000110107	Hexagonal socket screw 5x5 (WP)
26	789116006	Upper looper pin
27	788610002	Lower looper (unit)
28	785024107	Lower looper base(2)
29	784083606	Lower looper
30	788042007	Rear needle guard
31	785023003	Front needle guard
32	000099006	Hexagonal socket screw 3x4
33	000138008	Bolt 4x16
34	788611003	Thread guide supporter (unit)
35	788043008	Thread guide supporter
36	788044009	Looper thread guide (2)
37	788047002	Hinge screw (1)
38	788045000	Looper thread guide(3)
39	788046001	Lower looper spring
40	788048003	Hinge screw (2)
41	000002105	Snap ring E-3
42	000101415	Setscrew 4x6

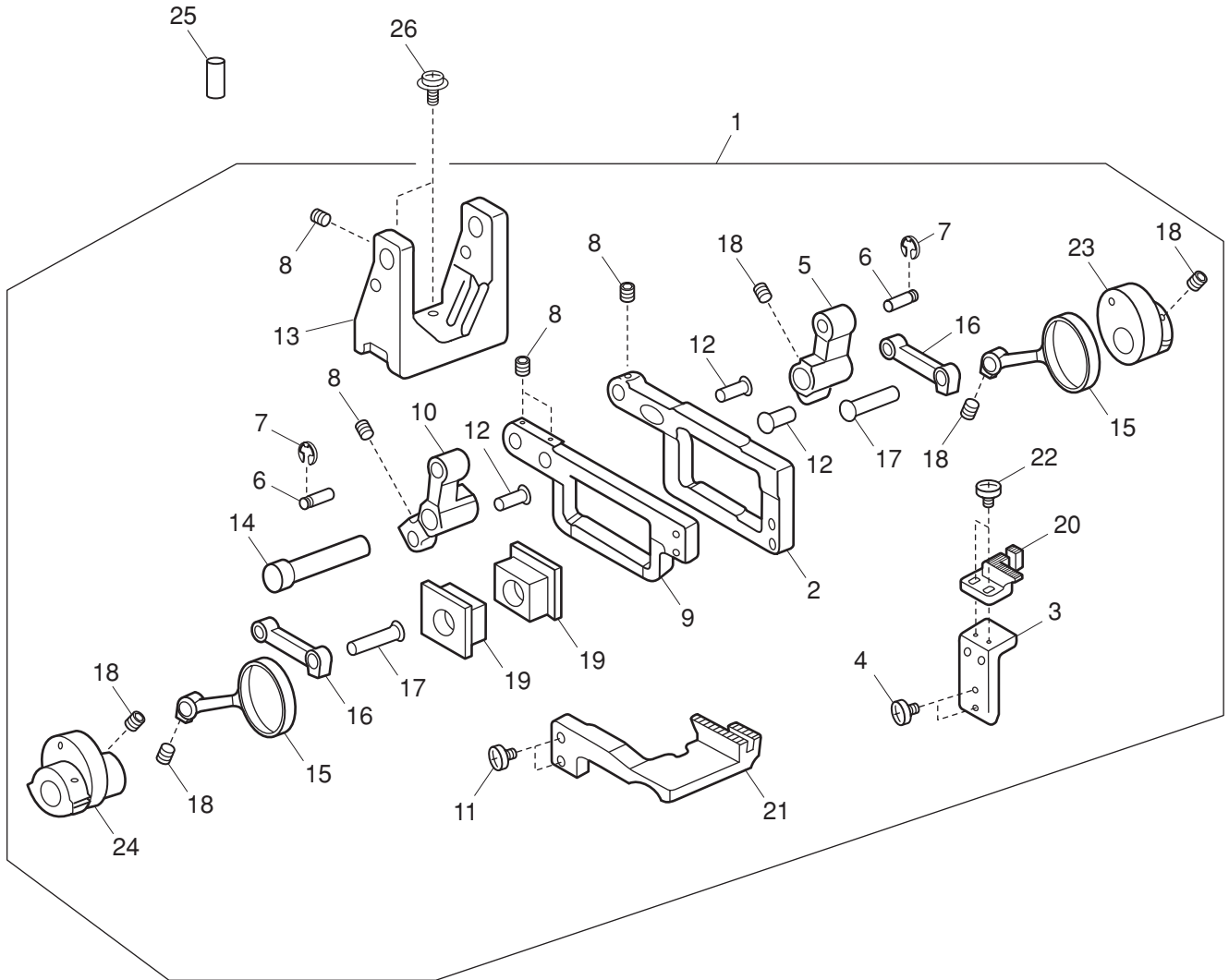
# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	792613008	Chaining finger set plate (unit)
2	788015001	Chaining finger bracket
3	789106003	Chaining finger set plate
4	788017003	Chaining finger
5	787041003	Needle plate setting knob
6	788018004	Chaining finger spring
7	000074603	Setscrew TP 2x4-2
8	000078320	Setscrew 3x6
9	788019005	Fixed needle guard
10	000081005	Setscrew 4x8
11	792622000	Chaining finger bracket (unit)
12	787046008	Guide plate
13	792007003	Lower knife guide shaft
14	787048000	Spring
15	000036500	Washer
16	788021000	Nut
17	793615003	Link pin (unit)
18	793129005	Link pin
19	000001609	Snap ring E-5
20	788008001	Upper knife drive cam
21	000111201	Hexagonal socket screw 4x4
22	787032001	Upper knife connecting rod
23	792603005	Lower knife (unit)
24	792005001	Lower knife set plate
25	788013009	Lower knife
26	000102221	Setscrew 4x6
27	000001207	Snap ring E-2.5
28	793613218	Upper knife drive arm (unit)
29	793105304	Upper knife drive arm
30	793107007	Upper knife supporter
31	793124000	Spring
32	793130009	Upper knife knob
33	000022802	Spring pin 2x12
34	788011007	Upper knife
35	624303008	Hexagonal bolt 4x6
36	787022101	Upper knife drive shaft
37	000002909	Snap ring E-7

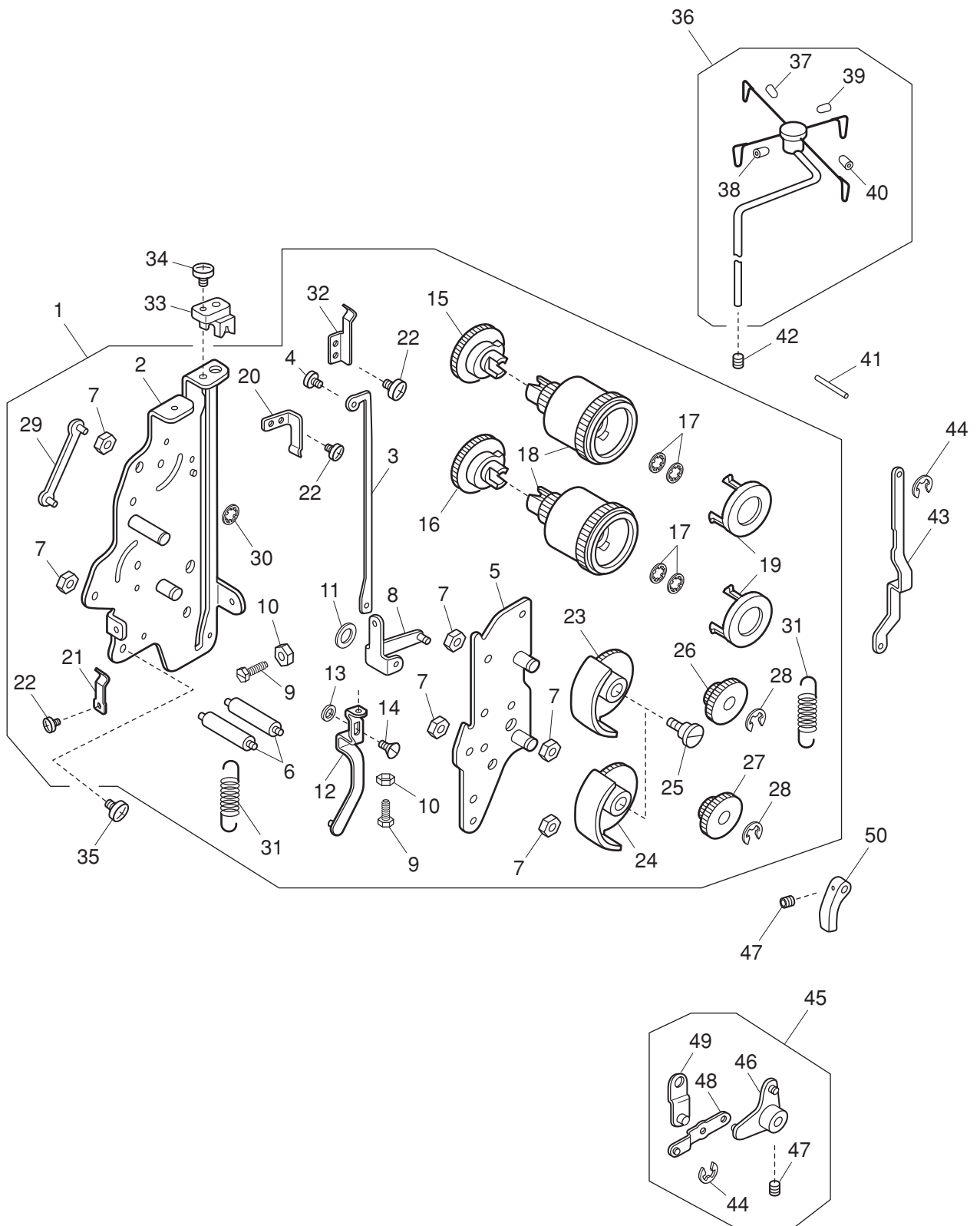
# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788606005	Feed bar (unit)
2	788022001	Main feed bar
3	788023002	Main feed dog bracket
4	000068811	Setscrew 3.5x10
5	787054009	Main feed bar drive arm
6	787224002	Pin
7	000002507	Snap ring E-5
8	000111902	Hexagonal socket screw 3x4
9	788024003	Sub feed bar
10	787212007	Sub feed driving arm
11	000104201	Setscrew 3.5x10
12	787059004	Pin
13	787305008	Feed bar base
14	787306009	Feed driving arm pin
15	787065003	Feed bar link
16	787066004	Feed rocking link
17	787068006	Pin
18	000111201	Hexagonal socket screw 4x4
19	792008004	Block
20	788027006	Main feed dog
21	789018007	Sub feed dog
22	000066705	Setscrew 3x8
23	787072003	Main feed drive cam
24	787073004	Sub feed drive cam
25	000005304	Pin
26	000201405	Setscrew TP 4x16

# PARTS LIST

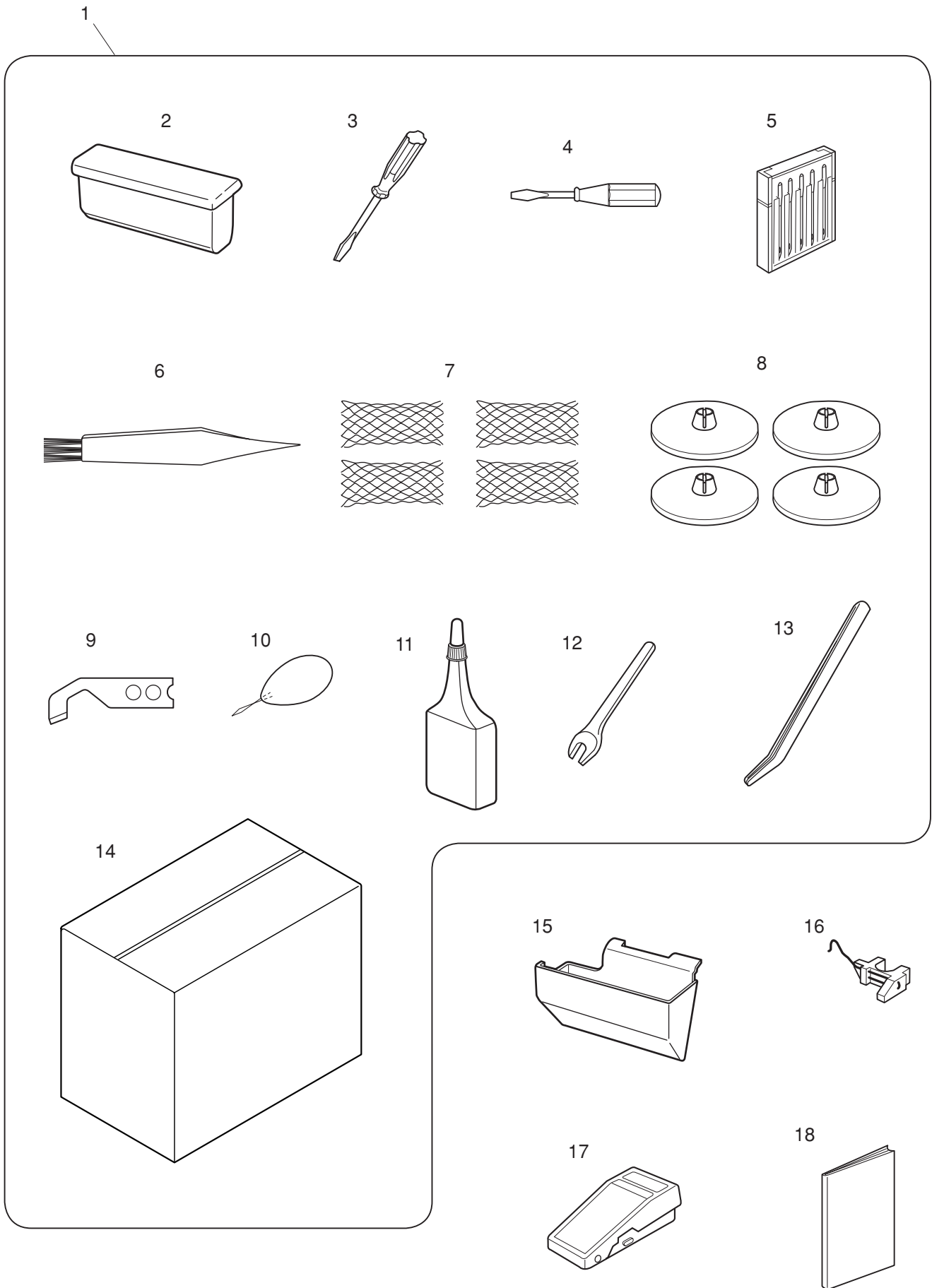




# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788608007	Feed adjuster bracket (unit)
2	788033005	Frame (large)
3	787191009	Set plate
4	000101105	Setscrew 3x4
5	788034006	Frame (small)
6	785375003	Pin
7	000061205	Nut 4-3-7
8	787089003	Feed adjuster arm
9	785224006	Adjusting screw
10	000160102	Adjustable lock nut 4
11	000036500	Washer
12	787264004	Differential feed adjuster arm
13	785222004	Set plate
14	785286006	Hinge screw
15	787091008	Feed adjuster cam
16	788036008	Differential feed adjuster cam
17	000013800	Snap ring CS-6
18	785309109	Dial
19	785221106	Dial cover
20	787093000	Index spring (2)
21	787263003	Index spring
22	000081119	Setscrew 4x6
23	785315500	Stitch length indicator
24	785315706	Differential feed indicator
25	785380001	Setscrew
26	785313003	Teethed wheel
27	785381002	Intermediate teethed wheel
28	000001609	Snap ring E-5
29	788037009	Connecting rod
30	000014306	Snap ring CS-3
31	787259006	Differential feed spring
32	787099006	Spring
33	787095002	Thread guide bar stopper
34	000161206	Setscrew 3x10 (B)
35	000081005	Setscrew 4x8
36	787616005	Thread guide bar (unit)
37	787190008	Thread guide cap (orange)
38	787190101	Thread guide cap (blue)
39	787190204	Thread guide cap (dark red)
40	787190307	Thread guide cap (green)
41	787097004	Pin
42	000111902	Hexagonal socket screw 3x4
43	787102003	Feed rod
44	000002105	Snap ring E-3
45	788607006	Main feed connecting arm (unit)
46	788029008	Main feed connecting arm
47	000111201	Hexagonal socket screw 4x4
48	788030002	Feed connecting plate
49	788031003	Differential regulating arm
50	788032107	Sub feed connecting arm

# PARTS LIST



# PARTS LIST

KEY NO.	PARTS NO.	DESCRIPTION
1	788870105	Accessory set
2	787172004	Accessory box
3	784810002	Screwdriver (large)
4	647803004	Screwdriver (small)
5	784860100	Needle case
6	802424004	Lint brush
7	624806006	Net
8	822020503	Spool holder
9	788011007	Upper knife
10	784805004	Needle threader
11	131402005	Oil
12	784809008	Spanner
13	624801001	Tweezers
14	785808000	Cover
15	787171900	Dust box
16	788618000	Spreader
17	C-2060	Foot control
18	788800263	Instruction book