

SERVICING MANUAL



Memory Craft 5000

TO CHANGE THE FACE PLATE UNIT AND TOP COVER UNIT

FACE PLATE UNIT

TO REMOVE

1. Remove the two screws, and remove the face plate.

TO ATTACH

2. Tighten the two screws slightly, and attach the face plate.
3. Close the face plate, and check the unevenness between the face plate and arm. Tighten the screws securely.
4. Check if the face plate opens and closed normally, and adjust the position of the face plate spring, if necessary.

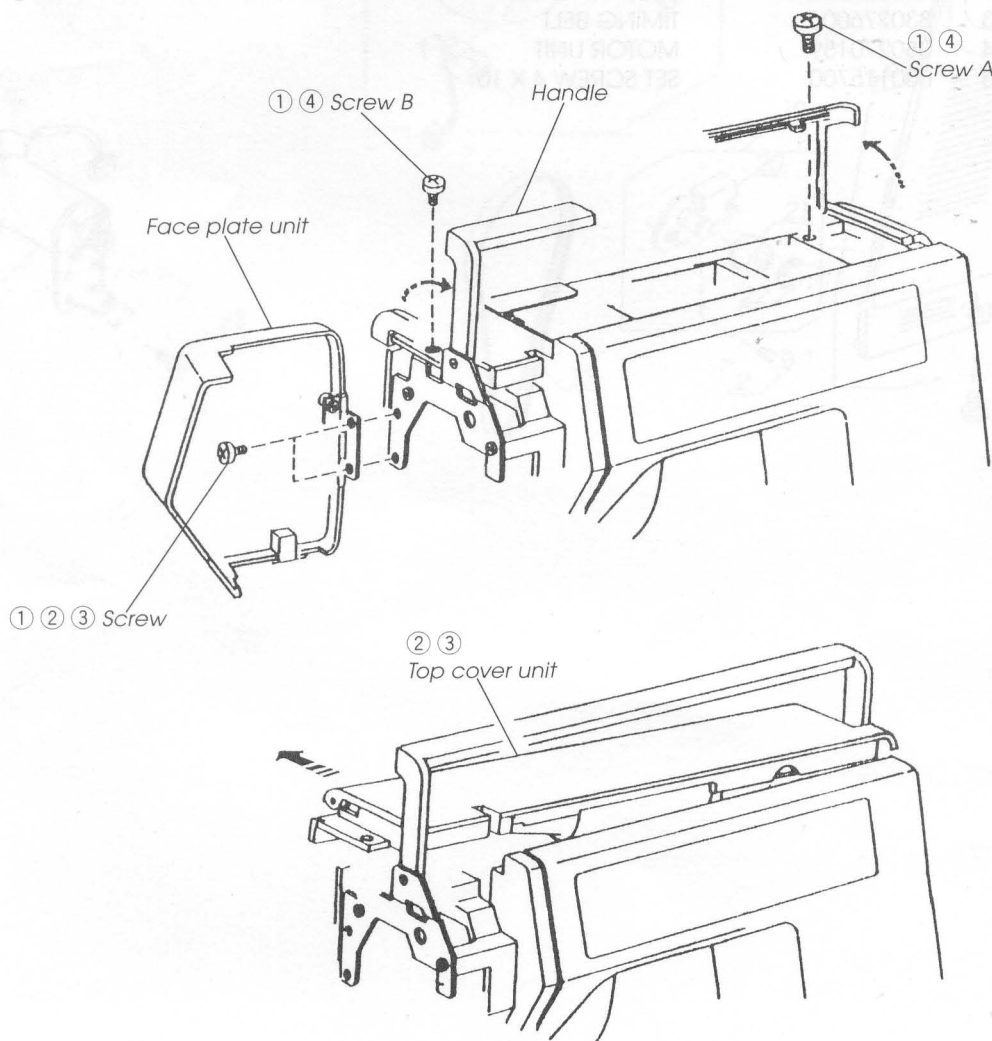
TOP COVER UNIT

TO REMOVE

1. Remove the screw A and raise the handle, and then remove the screw B.
2. Close the top cover and raise the handle, and then pull out the top cover unit in the direction of the arrow.

TO ATTACH

3. Raise the handle, and insert the top cover unit from the rear side.
4. Attach the top cover unit by tightening the screw A and the screw B.



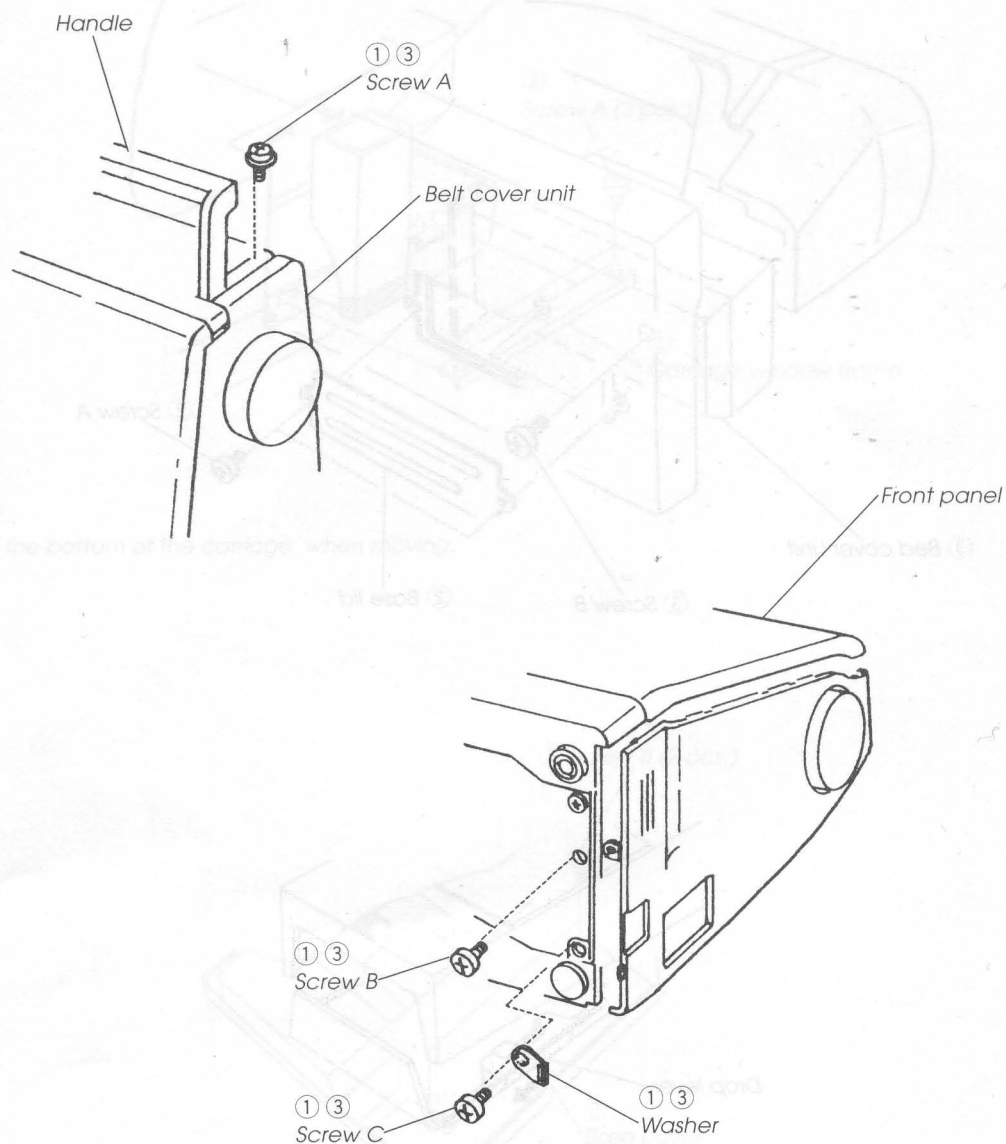
TO CHANGE THE BELT COVER UNIT

TO REMOVE

1. Loosen screw A and remove screws B, C and the washer. Then remove the belt cover unit.

TO ATTACH

2. Insert the belt cover in the front panel.
3. Replace screws A, B, C (with washer).



TO CHANGE THE BED COVER UNIT

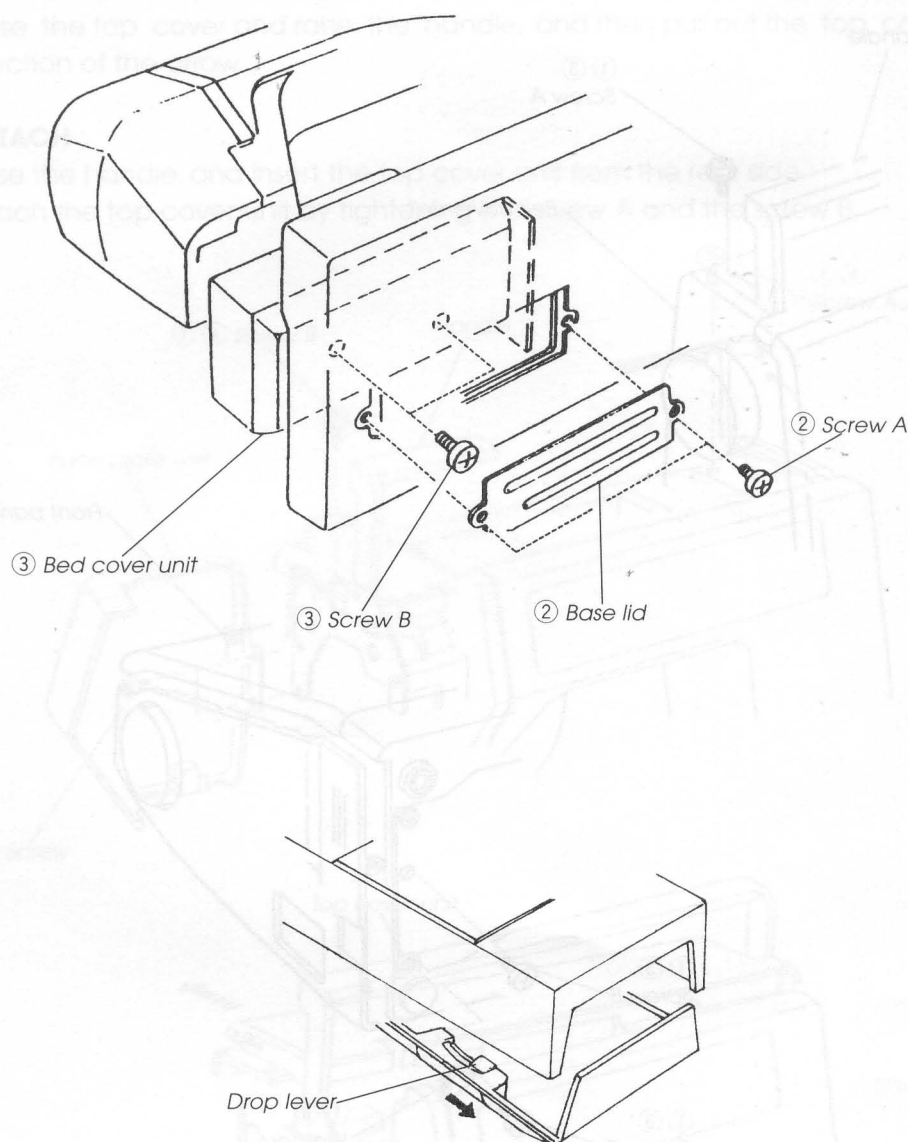
TO REMOVE

1. Remove the base cover (see page 25).
2. Remove the two screws A, and remove the base lid.
3. Remove the two screws B, and remove the bed cover unit.

TO ATTACH

4. Follow the above procedure in reverse.

NOTE: Set the drop lever as shown below.



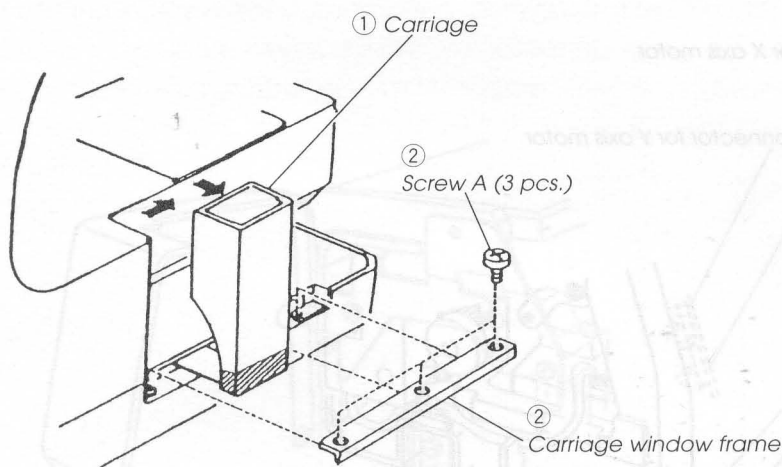
TO ADJUST TO CHANGE THE BASE COVER DIRECTION

TO REMOVE

1. Move the carriage by hand as shown below.
(Hold the bottom of the carriage securely when moving.)
2. Remove the three screws A, and remove the carriage window frame.
3. Remove the two screws B, and remove the base cover.

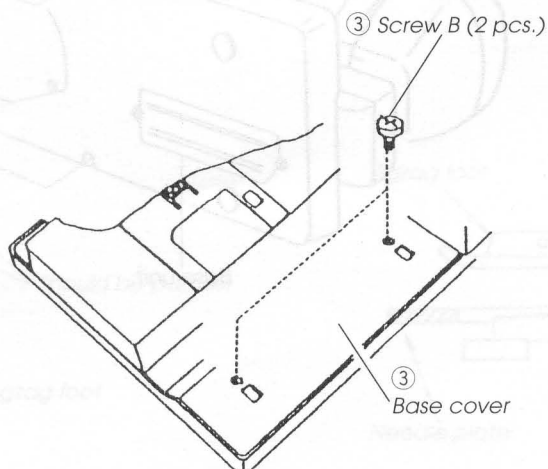
TO ATTACH

4. Follow the above procedure in reverse.



NOTE:

Hold the bottom of the carriage when moving.



TO CHANGE THE BASE UNIT

TO REMOVE

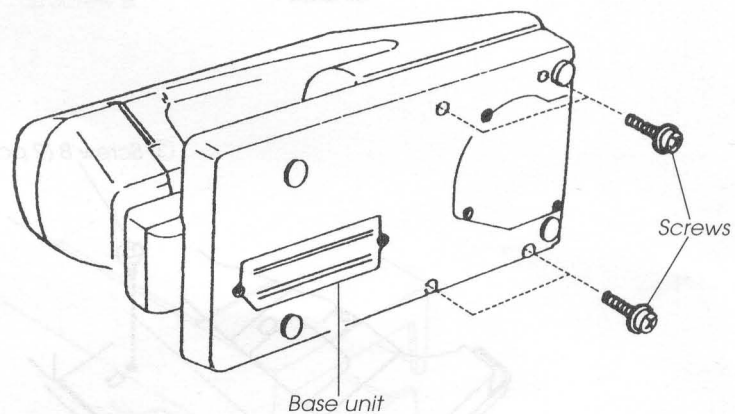
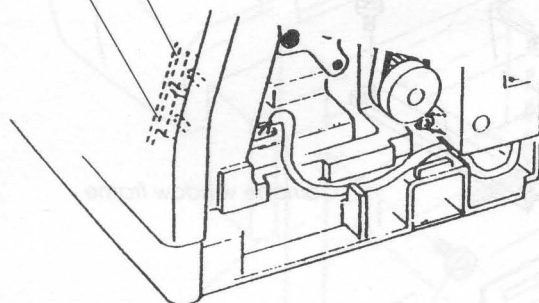
1. Remove the base cover.
2. Pull the connectors for the X axis and Y axis motors from A board.
3. Remove the 4 screws and the base unit.

TO ATTACH

4. Follow the above procedure in reverse.

Connector for X axis motor

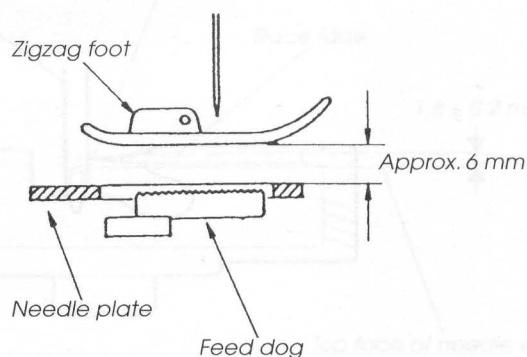
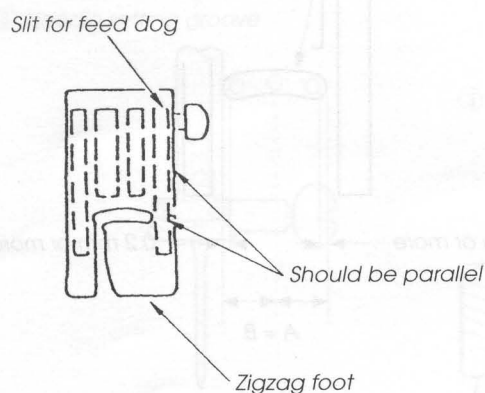
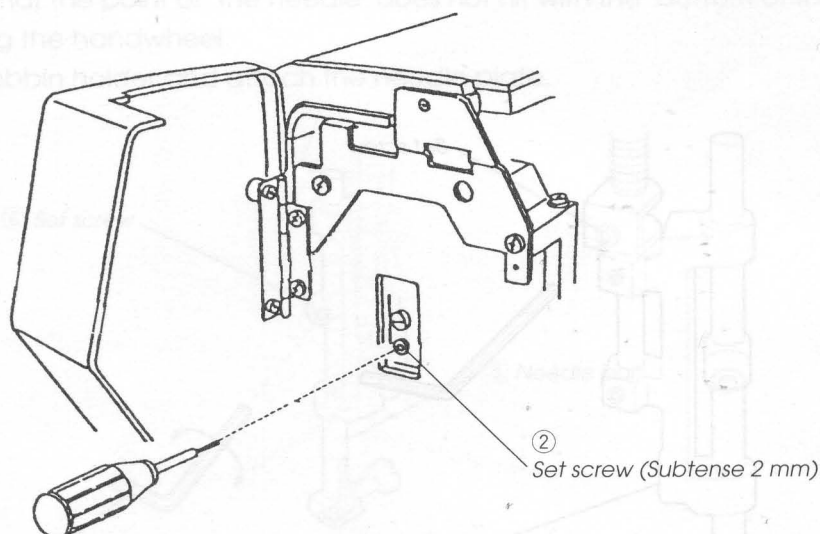
Connector for Y axis motor



TO ADJUST THE PRESSER BAR HEIGHT AND DIRECTION

- * When the presser foot lifter is raised, the distance between the surface of the needle plate and the bottom of the presser foot should be 6.0 mm.
- * The setting direction of the presser bar should be such that the side edge of the zigzag foot is in parallel with the edge of the slit for the feed dog of the needle plate, when the presser foot lifter is lowered.

1. Open the face plate.
2. Raise the presser foot lifter and loosen the set screw.
3. Adjust the height and direction of the presser foot, and tighten the set screw securely.

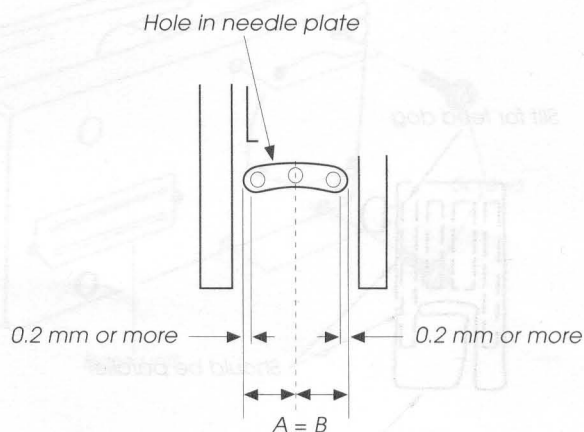
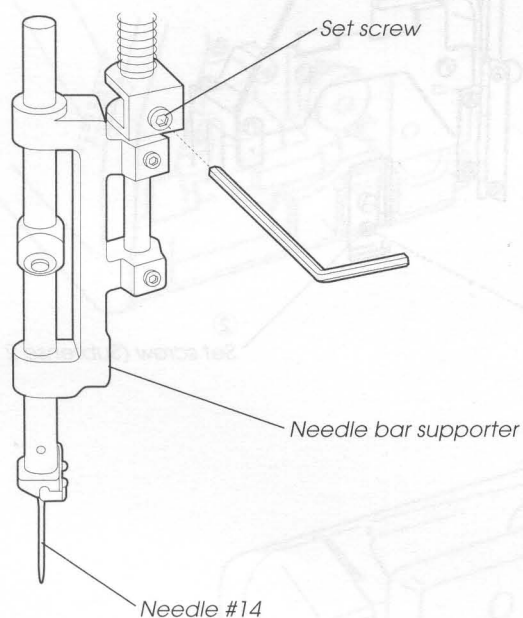


TO ADJUST THE NEEDLE POSITION

* When straight stitch #1 is selected, the needle should be at the center hole of the needle plate.

When the zigzag stitch is selected with the zigzag width set to the maximum (7.0), the clearance between the side of the needle and the outer edges of the left and right needle plate holes should be 0.2 mm or more.

1. Select straight stitch #1, and turn the handwheel toward you to bring the needle bar to the lowest position (see page 29).
2. Open the face plate and loosen the set screw.
3. Move the needle bar supporter unit left or right to position the needle at the center of hole in the needle plate.
Then tighten the set screw.
4. Select the zigzag stitch #7 and set the zigzag width to the maximum (7.0).
5. Turn the handwheel toward you, and check if the clearance between the side of the needle and the edge of hole of the needle plate at the left and right needle position is 0.2 mm or more.

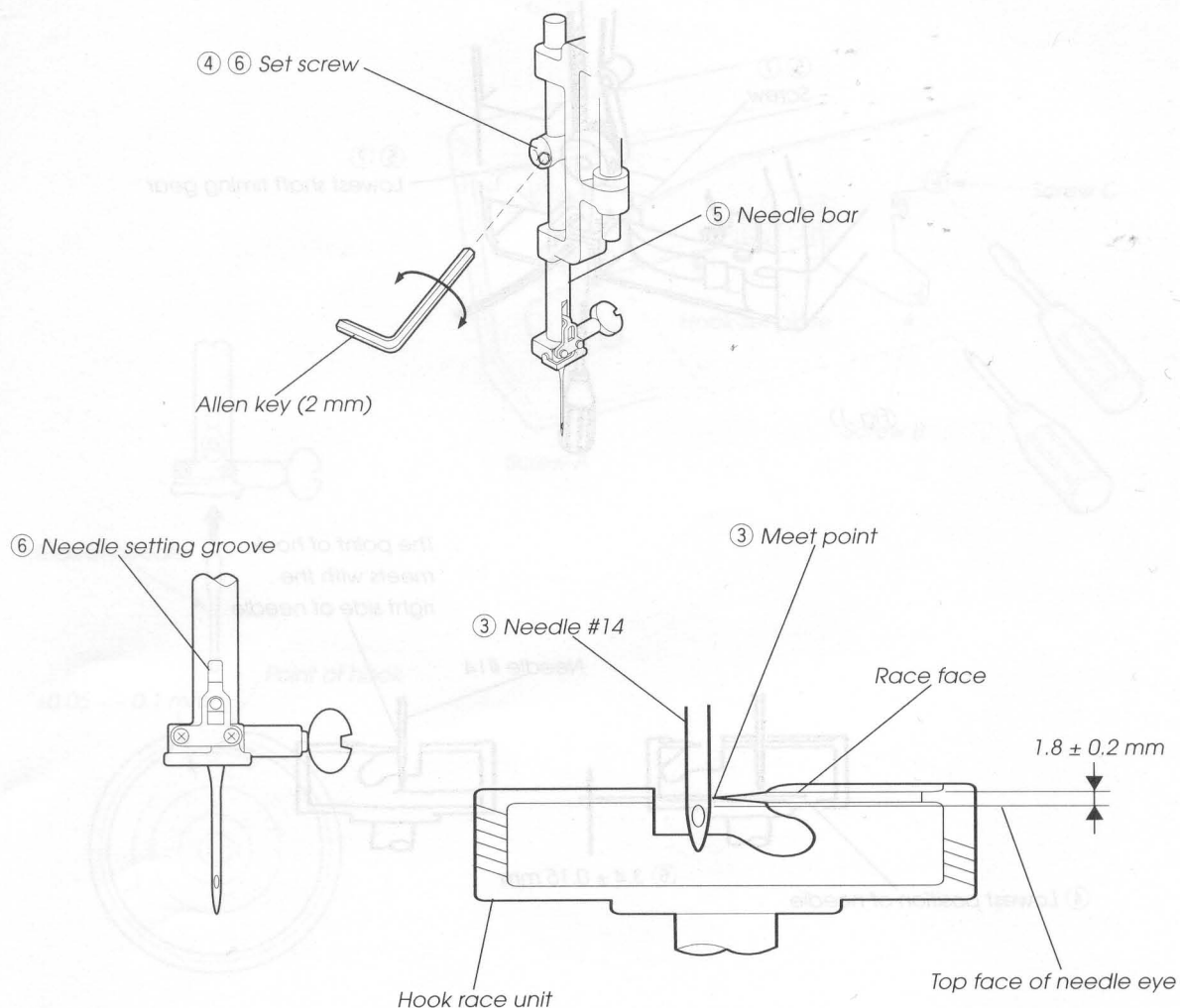


TO ADJUST THE NEEDLE BAR HEIGHT

* The needle bar height means the distance between the upper edge of the point of hook and the upper edge of the needle eye when the point of the hook meets the right side of the needle in the upward travel of the needle bar from the lowest position with stitch pattern #2 () selected.

* The standard needle bar height is 1.8 ± 0.2 mm.

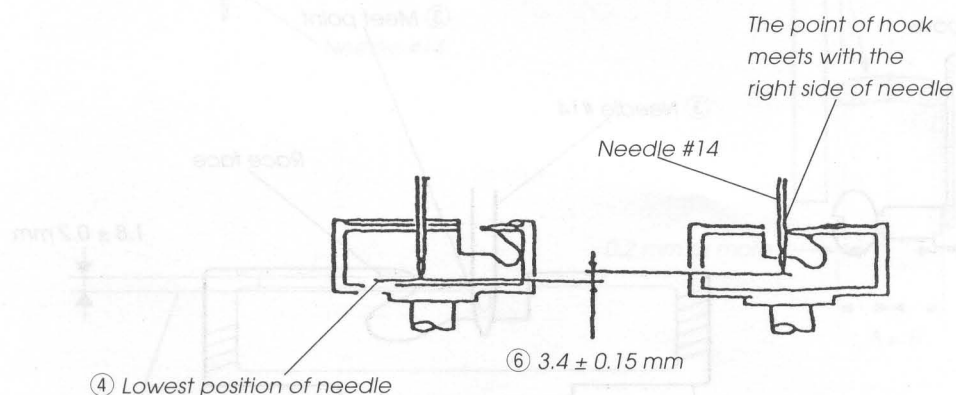
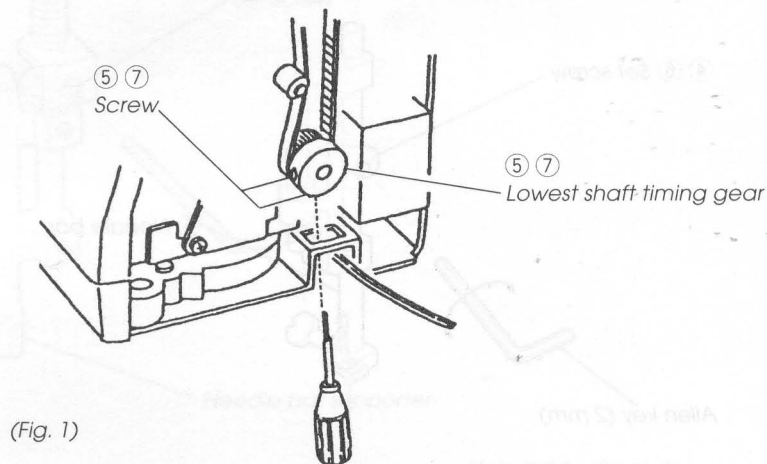
1. Remove the needle plate and bobbin holder.
Turn on the power switch and select stitch pattern #2 ().
2. Press STITCH LENGTH / STITCH WIDTH key () and set the needle position to 0.0 on the touch panel.
3. Turn the handwheel toward you until the point of the hook meets the right side of the needle.
4. Insert an allen key (or hexagonal screw driver) through the work hole in the front bracket, and loosen the set screw with it.
5. Move the needle bar up and down to adjust its height.
6. Tighten the set screw, placing the needle setting groove of the needle bar on the front.
7. Make sure that the point of the needle does not hit with the bottom of the hook race, when turning the handwheel.
8. Insert the bobbin holder and attach the needle plate.



TO ADJUST THE HOOK TIMING

* When pattern #2 () is selected, the amount of ascending travel of the needle bar from its lowest position to the position where the tip of the rotary hook exactly meets the right side of the needle should be 3.25 to 3.55 mm.

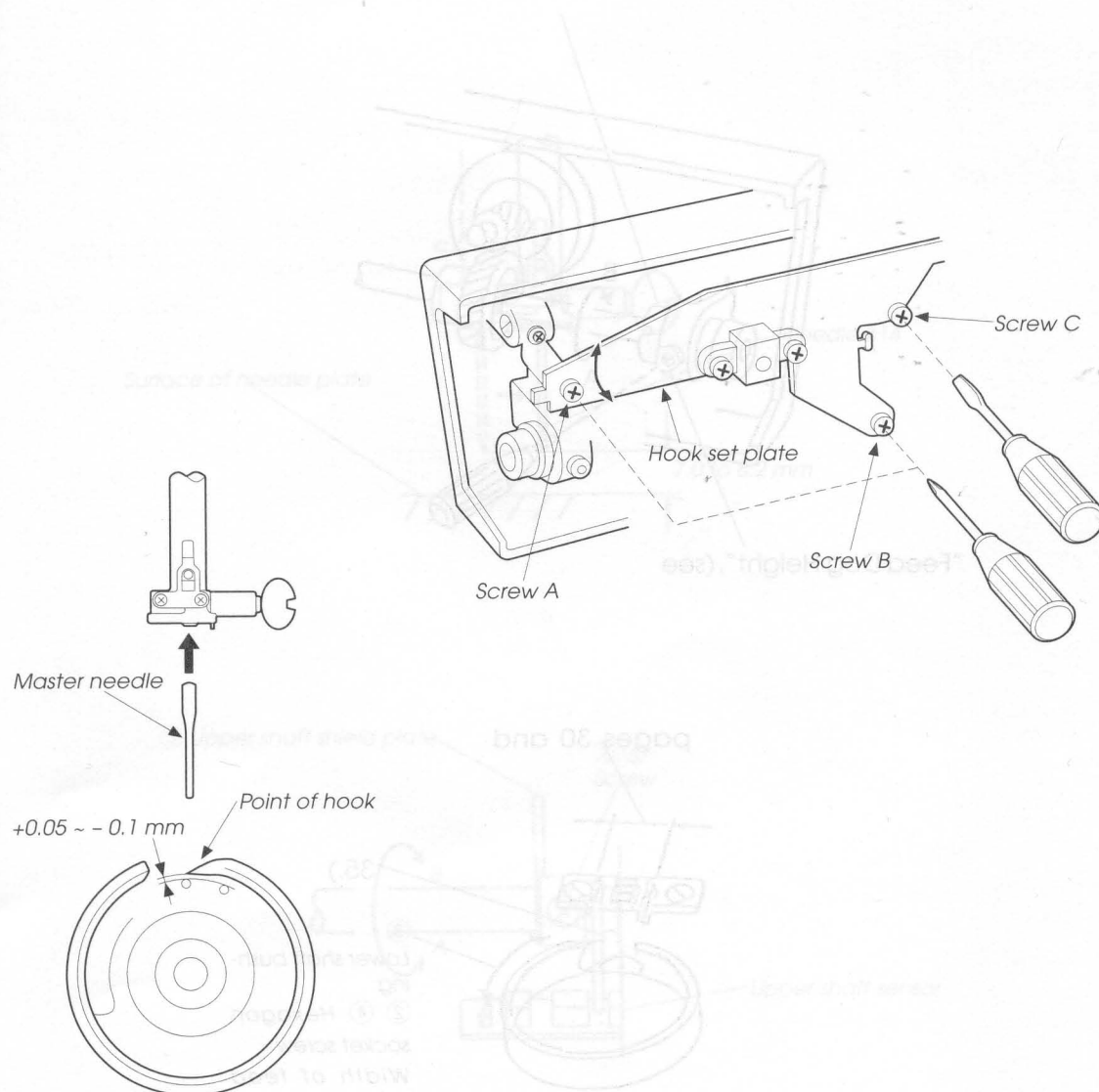
1. Remove the belt cover, bed cover, base cover and base lid (see pages 23, 24, 25.)
2. Turn on the power switch and select pattern #2 ().
3. Press the STITCH LENGTH / STITCH WIDTH key () and set the needle position to 0.0 on the touch panel.
4. Turn the handwheel toward you, and set the needle bar to the lowest position.
5. In this condition:
 - If the setting mark is not right under it, loosen the two set screws on the lower shaft timing gear (Fig. 1).
6. Raise the needle bar 3.4 (+ 0.15 mm) from the lowest position.
7. Turn the lower shaft gear until the point of the hook meets with the right side of the needle, and tighten the two set screws on the lower shaft timing gear.
8. Attach the belt cover, bed cover, base cover and base lid (see pages 23, 24, 25.)



TO ADJUST THE CLEARANCE BETWEEN NEEDLE AND HOOK

* The clearance between the needle and the point of hook should be -0.1 to $+0.05$ mm.

1. Remove the needle plate, bobbin holder, base cover, base lid and bed cover unit, and replace the needle with the Master needle. (see page 24 and 25.)
2. Turn on the power switch, and select the pattern #7.
3. Loosen screws A, B and C, and slightly tighten the screw C.
4. Turn the balance wheel toward you, and adjust the clearance between the Master needle and the point of hook in the left and right needle positions to -0.1 to $+0.05$ mm by moving the hook set plate up or down.
5. Tighten screws A, B and C securely.
6. Check the backlash of the hook drive gear and lower shaft gear.
If the backlash is too much or not enough, adjust the backlash in accordance with "To Adjust the Backlash of Hook Drive Gear and Lower Shaft Gear". (see page 32.)
7. Attach the bed cover unit, base cover, base lid, needle plate, and bobbin holder, and remove the Master needle. (see page 23 and 24.)

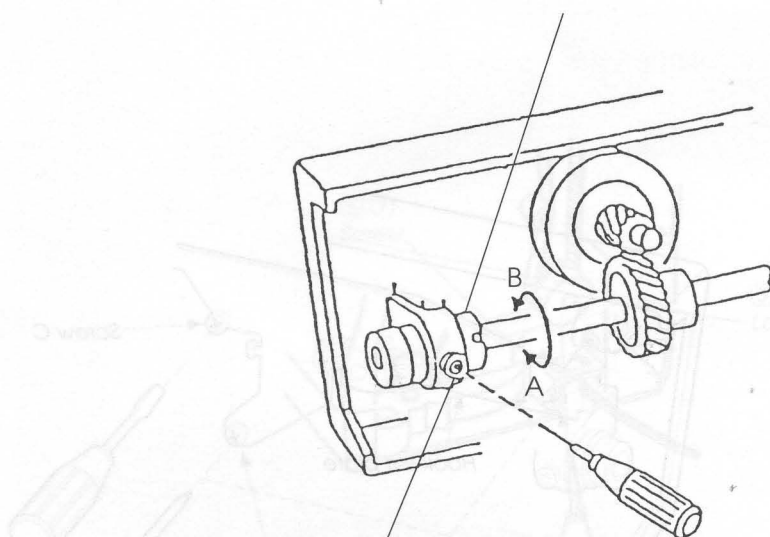


TO ADJUST THE BACKLASH OF HOOK DRIVE GEAR AND LOWER SHAFT GEAR

* The backlash of gears should be smooth and should be less than 0.8 mm when the point of hook is within the width of the feed dog as shown below.

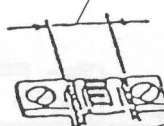
1. Remove the base cover, base lid, bed cover unit, needle plate and bobbin holder. (see page 24 and 25.)
2. Loosen the hexagon socket screw.
3. (A) If the backlash is too much, turn the lower shaft bushing to the direction of A.
- (B) If the backlash is not enough, turn the lower shaft bushing in the direction of B.
4. Tighten the hexagon socket screw.
5. Attach the bobbin holder, needle plate, bed cover unit, base cover, and base lid.

NOTE: After adjusting the backlash, be sure to check and adjust the "Hook Timing" and the



"Feed Dog Height". (see

pages 30 and



35.)

③ Lower shaft bushing

② ④ Hexagon socket screw

Width of feed dog

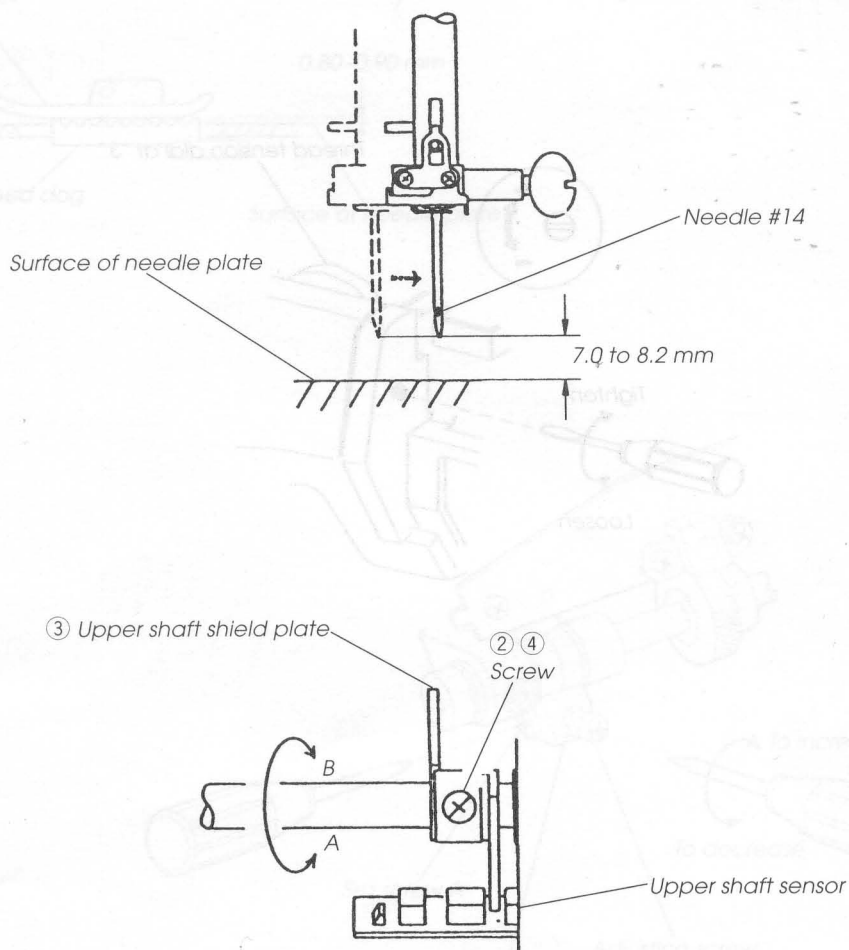
Point of hook

Check backlash

TO ADJUST THE UPPER SHAFT SHIELD PLATE POSITION

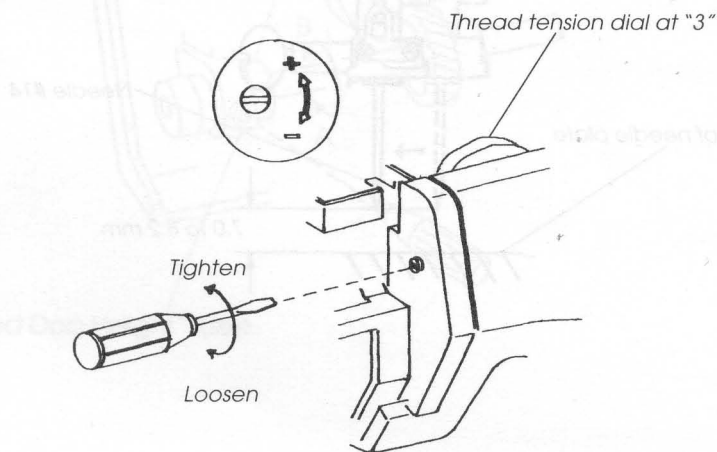
NOTE: When the machine is set for zigzag stitching, the needle should start to swing 7.0 to 8.2 mm above the surface of the needle plate.

1. Remove the top cover unit.
2. Turn on the power switch. Then select zigzag pattern #7.
3. Turn the handwheel toward you slowly with your hand until the needle starts to swing.
 - (A) If higher than 8.2 mm loosen the set screw and turn the upper shaft shield plate in direction A.
 - (B) If lower than 7.0 mm loosen the set screw and turn the upper shaft shield plate in direction B.
4. Push the upper shaft shield plate as far as possible to the left. (It should not touch the upper shaft sensor.) Then tighten the set screw.
5. Turn the handwheel toward you, and check the start point of needle swing. Attach the top cover unit (see page 22.)



HOW TO ADJUST THE NEEDLE THREAD TENSION

1. Set the thread tension dial to "3".
2. Open the face plate and adjust the thread tension with a screwdriver in the direction of:
 - "-" to loosen the tension.
 - "+" to tighten the tension.
3. Close the face plate.

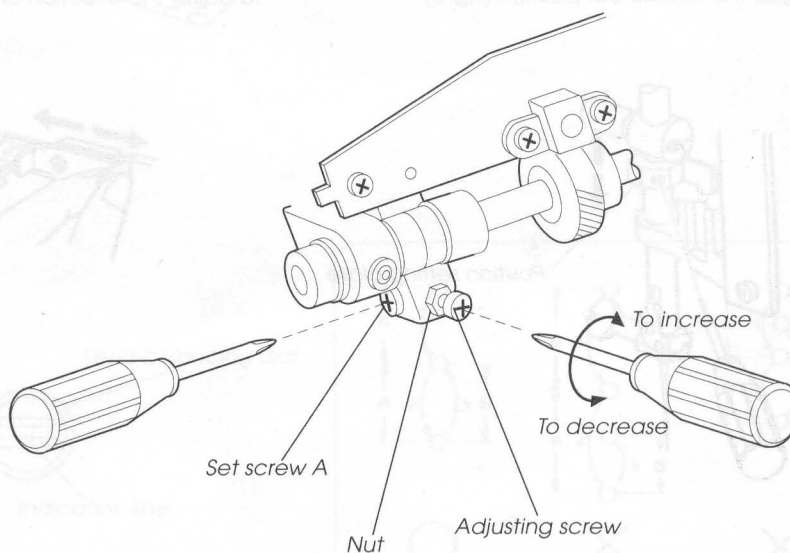
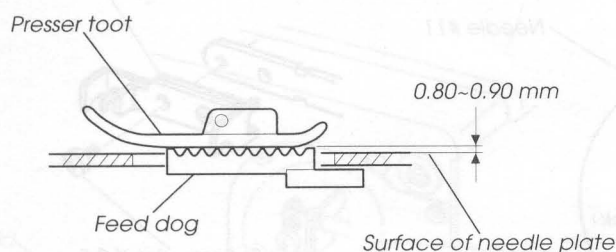


TO ADJUST THE FEED DOG HEIGHT

* When the pressure dial is at "3" and the presser foot is lowered, the highest position of the feed dog should be 0.80 to 0.90 mm from the surface of the needle plate.

1. Remove the base cover, base lid, and bed cover unit. (see page 24 and 25.)
2. Set the pressure dial at "3", and lower the presser foot. Then turn on the power switch.
3. Turn the balance wheel toward you until the feed dog comes to its highest position.
4. Loosen the set screw A and the nut.
6. Adjust the feed dog height to 0.80 to 0.90 mm by turning the adjusting screw.
7. Tighten the nut set screw A.

Attach the bed cover unit, base cover and base lid.



TO CHANGE THE THREADER PLATE AND ADJUSTMENT

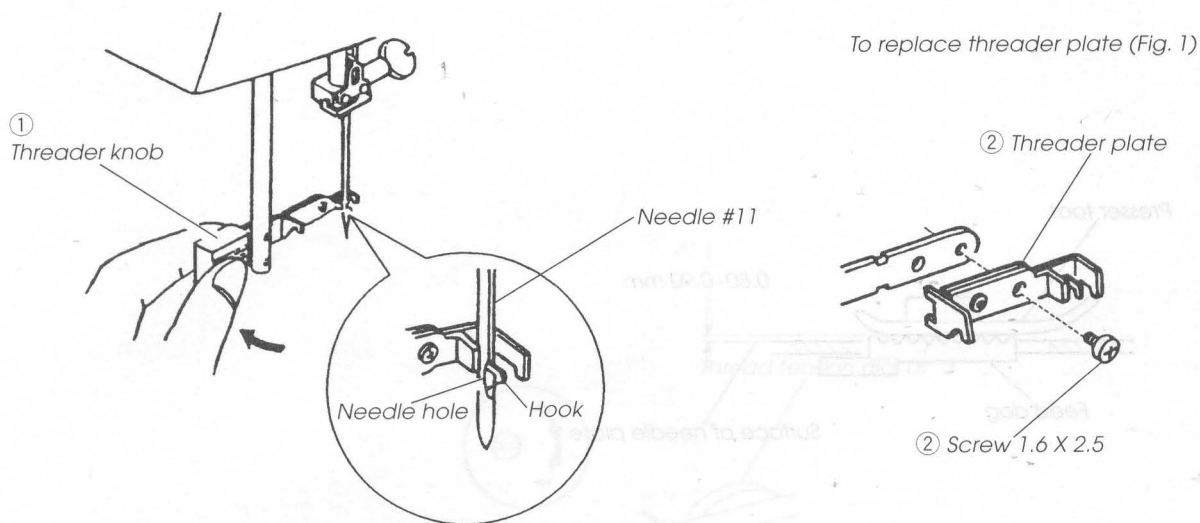
TO REMOVE

1. Raise the needle to its highest position and lower the threader knob to its lowest position.
2. Loosen the screw and remove the threader plate. (Fig.1)

TO ADJUST

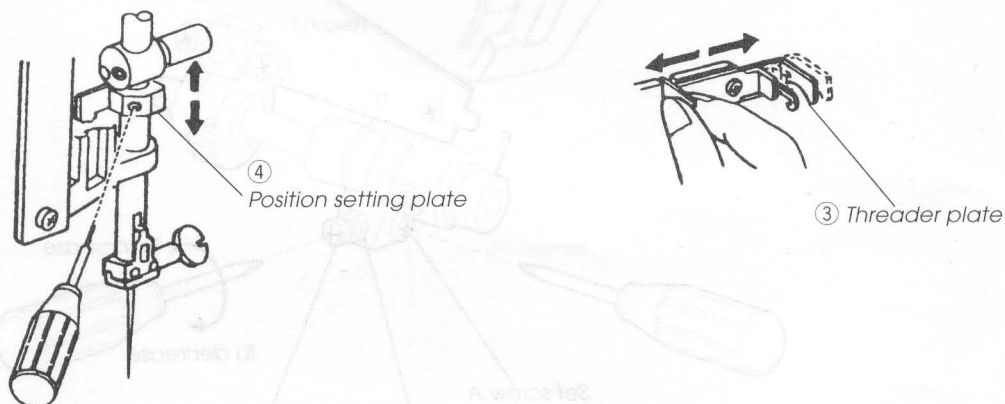
NOTE: Use #11 needle to adjust the threader plate position.

3. If the hook of the threader plate touches left or right side, loosen the screw and adjust the hook position. (Fig. 2)
4. If the hook of the threader plate touches the top or bottom side of the needle hole, loosen the screw and adjust the hook position. (Fig. 3)



To adjust the needle bar position (Fig. 3)

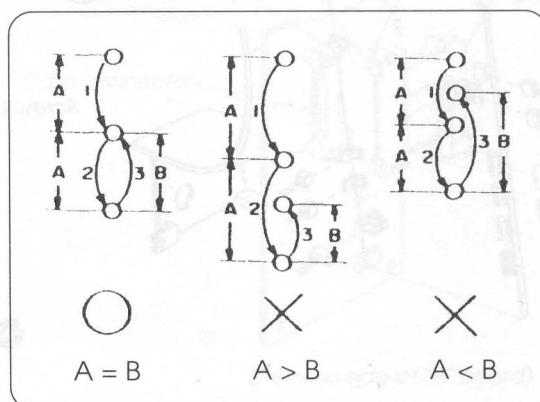
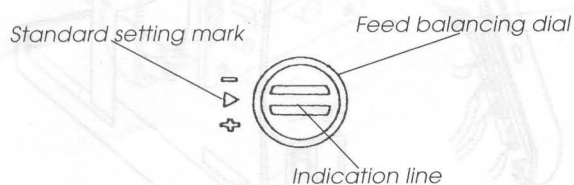
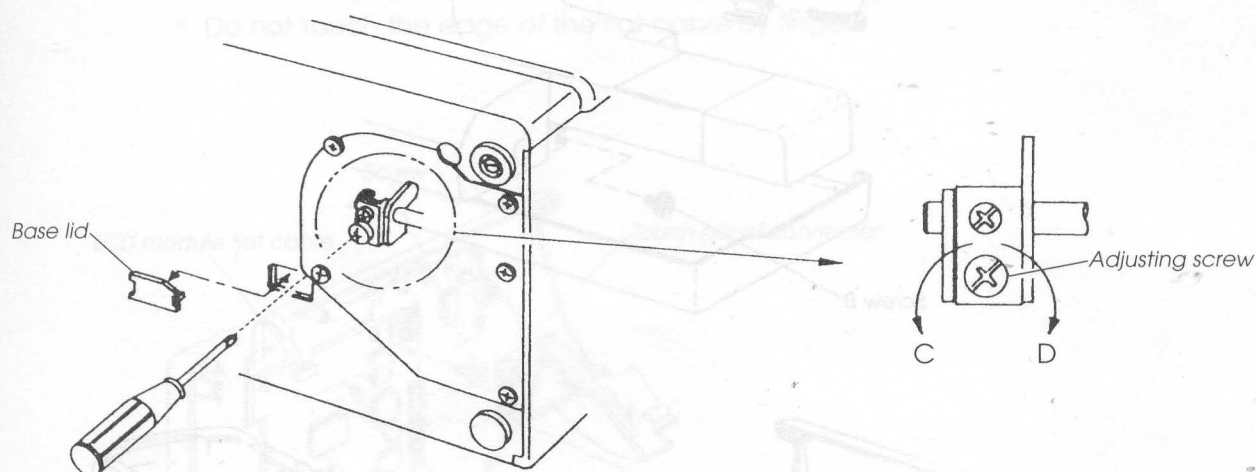
To adjust the direction of threader plate (Fig. 2)



TO ADJUST THE STRETCH STITCH FEED BALANCE

* When the stretch pattern #5 is sewn with the feed balancing dial set at the standard setting mark ($\triangleright$) on the front panel (front left), the sewn pattern should be in the O mark in the following figure.

1. Turn on the power switch, and select pattern #5 ($\equiv$).
2. Set the slit of the feed balancing dial at the standard setting mark ($\triangleright$) on the front panel.
3. Put a piece of paper between the zigzag foot and feed dog, and keep holding the presser bar lifter lever down.
4. Turn the balance wheel toward you, and check the needle drop position forward (A) and backward (B).
5. Remove the base lid.
6. Turn the feed balancing dial in the direction of:
"C" when $A > B$.
"D" when $A < B$.
7. Attach the base lid.



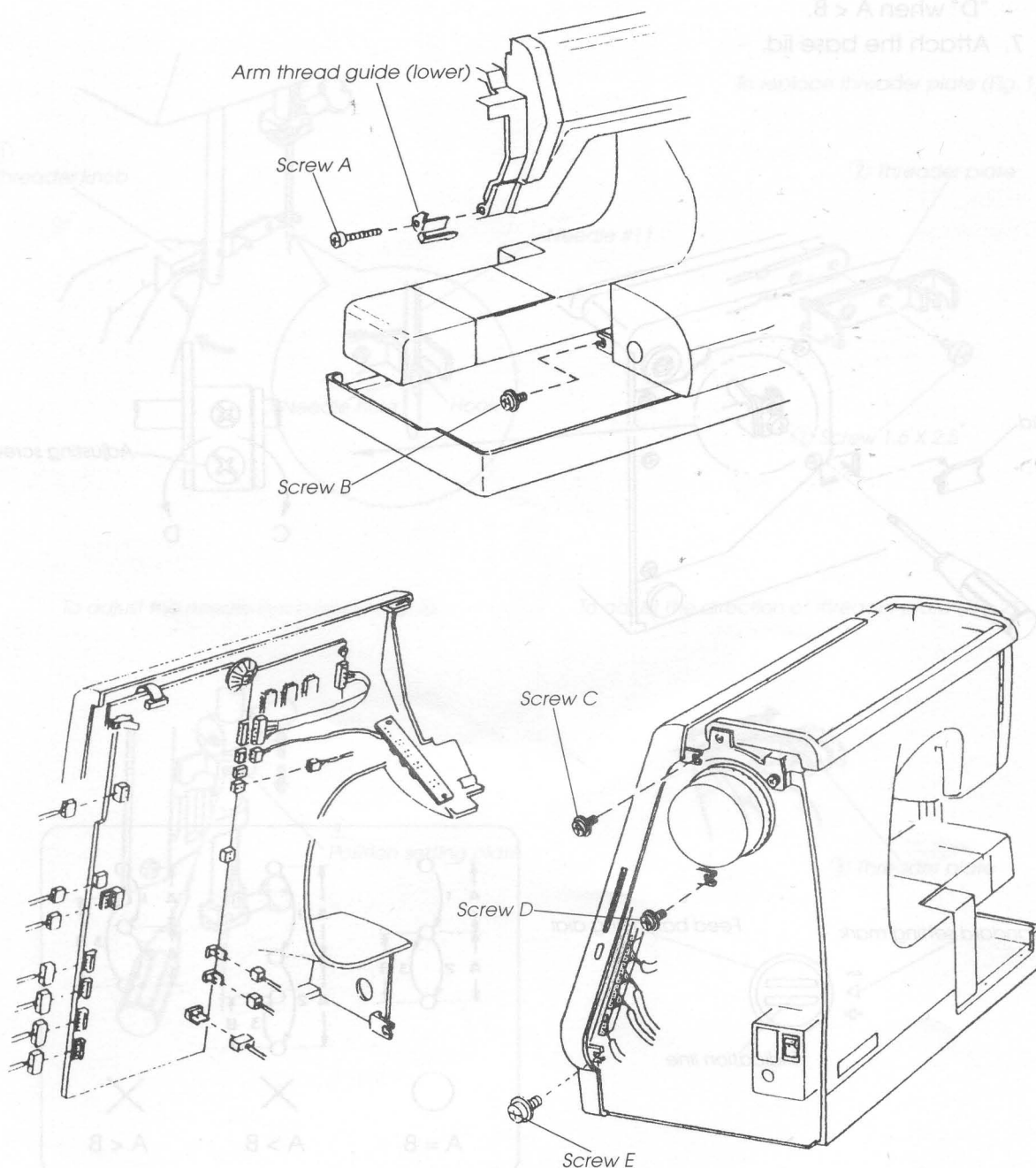
TO CHANGE THE FRONT PANEL UNIT

TO REMOVE

1. Remove the top cover unit and belt cover unit. (see page 22 and 23.)
2. Remove screw A and the arm thread guide (lower), and loosen screws B, C, D and E.
3. Pull out the eleven connectors from the "A" board unit and remove the front cover unit.

TO ATTACH

4. Follow the above procedure in reverse.



TO CHANGE THE "A" BOARD UNIT

TO REMOVE

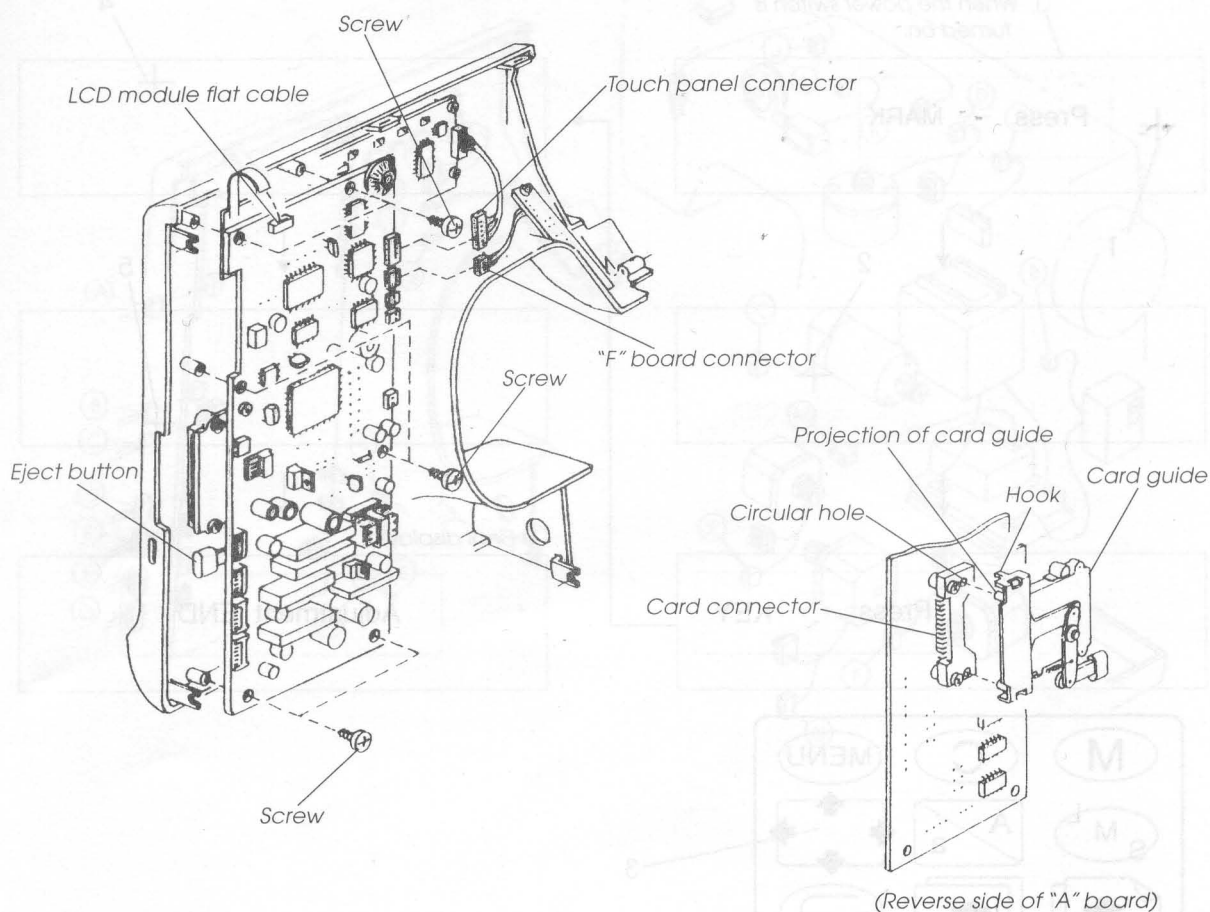
1. Remove the front panel unit. (see page 38.)
2. Pull out the flat cables of the LCD module and touch panel by lifting the connector clamps, and pull out the connectors of the "F" board from the "A" board unit.
3. Loosen the six screws, and remove the "A" board unit and card guide unit.
4. Unhook to remove the card guide, as shown in the figure below.

TO ATTACH

5. After putting the card guide between the "A" board unit and card connector, push in the card guide until it is hooked, while fitting the projection of the card guide into the circular hole of the card connector, and attach it to the "A" board unit.
6. Attach the "A" board unit to the front panel with the six screws together with the insulating paper
(The small "insulating paper" should go at the top right of Board A, under the screw.).
Then insert the flat cable into the connector and lower the connector clamp.
(Cause the eject button to come out of the hole of the front panel.)
7. Insert the connectors of the "F" board and touch panel.
8. Attach the front panel unit.

NOTE: * After changing the "A" board unit, "adjust the touch panel". (see page 40.)

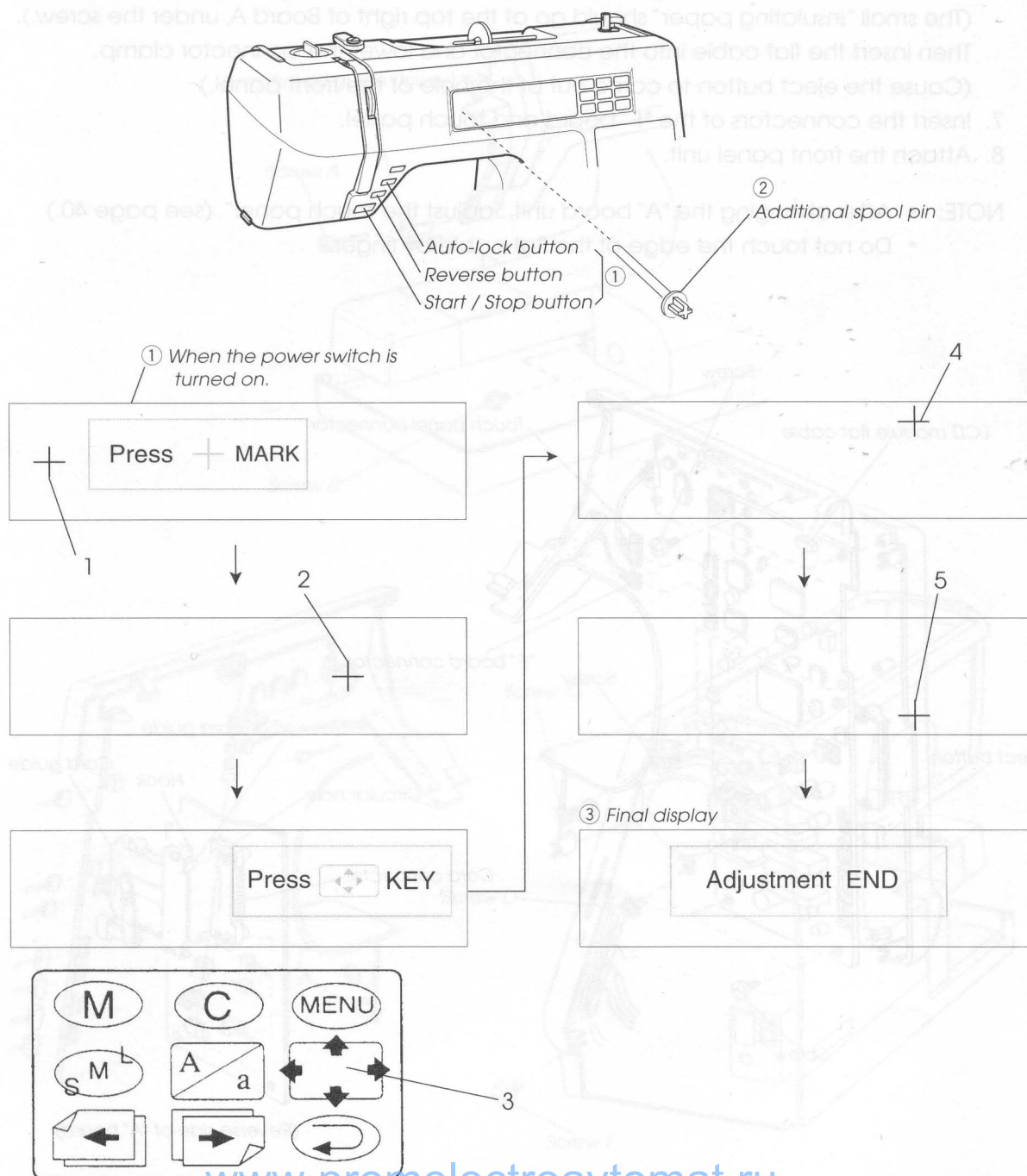
* Do not touch the edge of the flat cable by finger.



TO ADJUST THE TOUCH PANEL

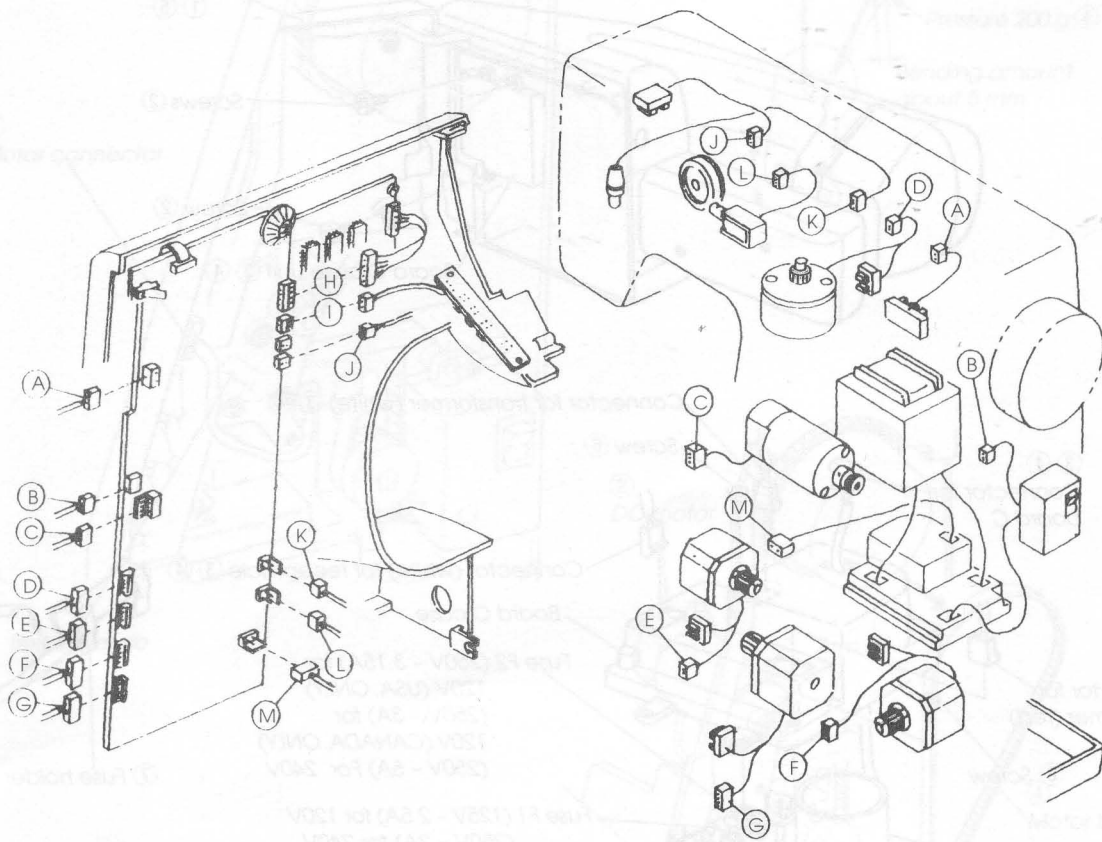
- You must re-adjust the touch panel if an incorrect pattern is selected while pressing the touch panel.
- Turn on the power switch while pressing the Start / Stop button, Reverse button and Auto lock button simultaneously.
(“Press + MARK” and a “+” mark are indicated on the LCD at a time.)
 - Press the center of the “+” mark with the point of the additional spool pin.
The “+” mark moves and a beep is emitted, as shown in the figure below, every time it is pushed.
 - When the fifth “+” mark is pressed, “Adjustment END” is indicated on the LCD.
 - Turn off power switch.
 - Turn on the power switch to check if the early display mode appears.

NOTE: After adjusting, check if all the keys are working.



DRAWING FOR "A" BOARD CONNECTORS (FRONT PANEL COMPLETE UNIT)

- A. Upper shaft sensor
- B. Receptacle (Machine socket unit)
- C. DC motor
- D. Zigzag width stepping motor
- E. Feed stepping motor
- F. X axis stepping motor for embroidery
- G. Y axis stepping motor for embroidery
- H. LCD module
- I. Circuit board "F"
- J. Buttonhole sensor
- K. Lamp
- L. Thread tension solenoid
- M. Circuit board C



TO CHANGE BOARD C AND FUSE

TO REMOVE

1. Remove the base unit and slide the base. (see page 26.)
2. Loosen the three set screws.
3. Unplug the 4 connectors.

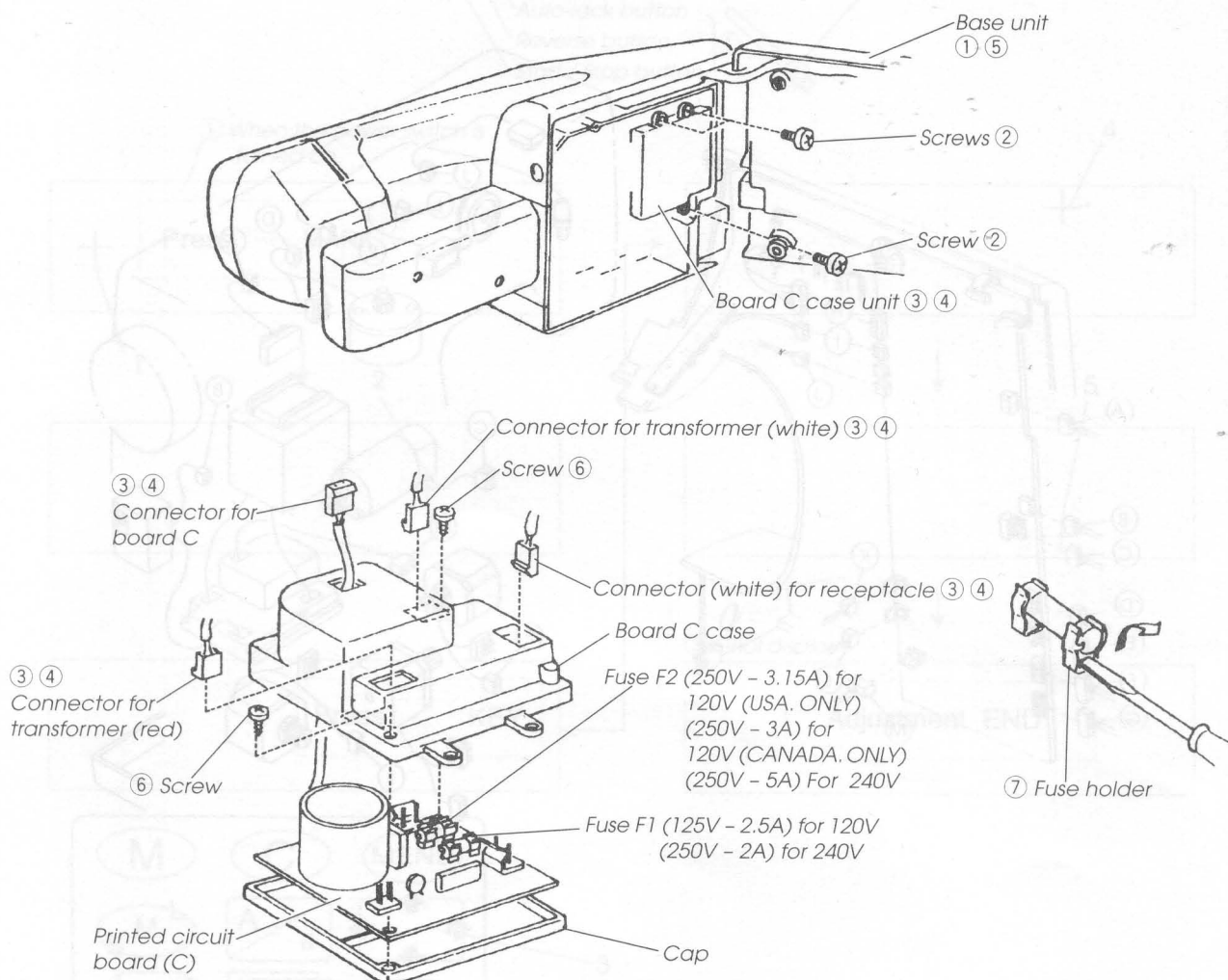
TO ATTACH

4. Follow the above procedure in reverse.
5. Attach the base unit. (Check the feed dog up/down position with ADJ key after attach the base unit.)

TO CHANGE THE FUSE

6. After remove the board C case unit, remove two set screws to pull out the printed circuit board C.
7. Replace the fuse in the fuse holder on board C.

- If Fuse F1 is blown ----- Transformer or board C is damaged.
- If Fuse F2 is blown ----- Too much power on the DC motor when the upper shaft, lower shaft or shuttle race has heavy torque.



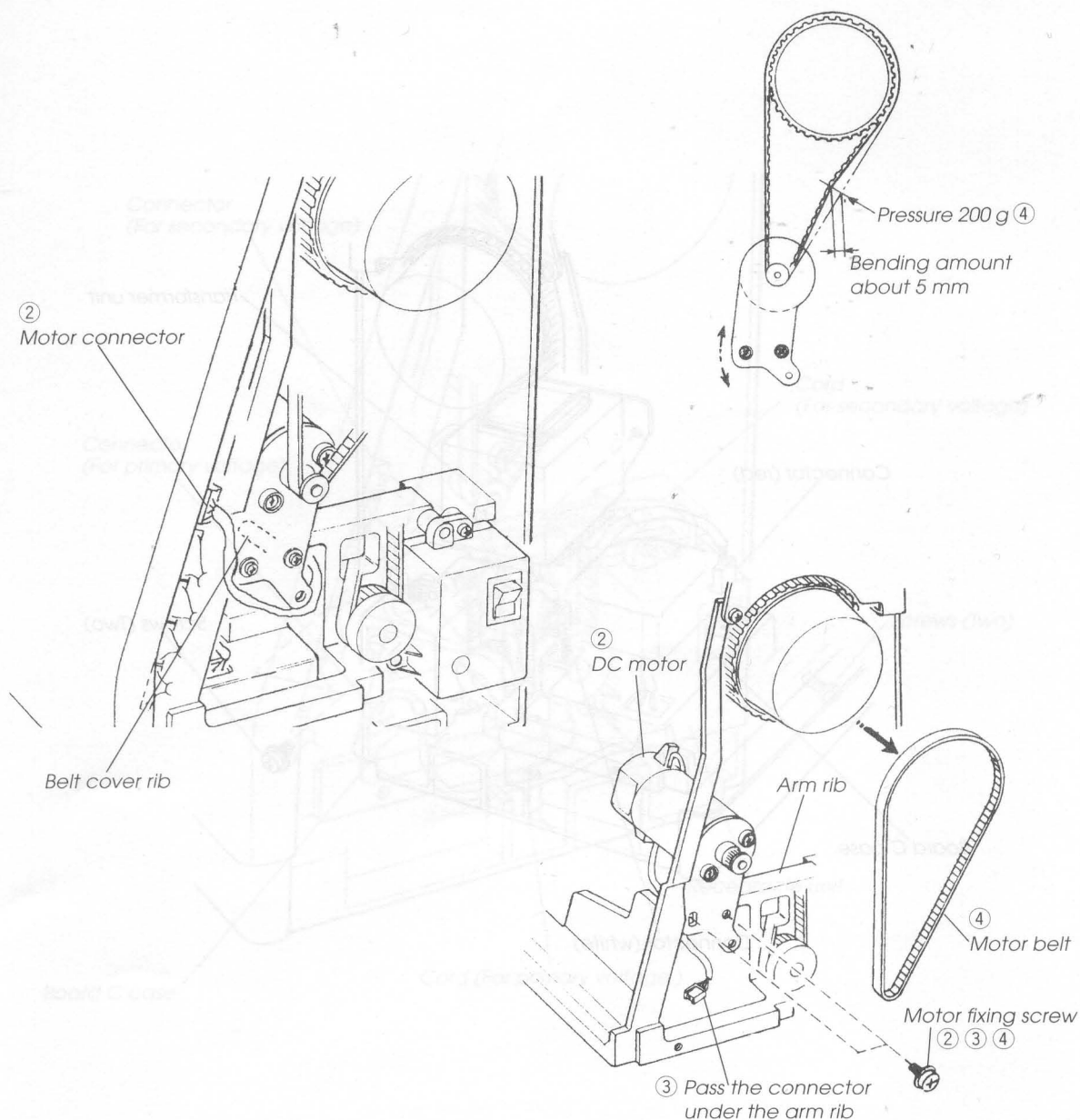
TO CHANGE DC MOTOR AND BELT TENSION ADJUSTMENT

TO REMOVE

1. Remove the belt cover.(see page 23.)
2. Pull out the motor connector from "A" board unit and remove 2 screws. Then remove the DC motor unit.

TO ATTACH

3. Pass the motor cord under the arm rib, then attach the motor with 2 screws temporary as shown below.
4. Set the motor unit with the motor belt. Make sure the belt tension should be set as shown below.
5. Insert the connectors to the "A" board unit.
6. Attach the belt cover. (Set the motor cord at the left side of the rib.)



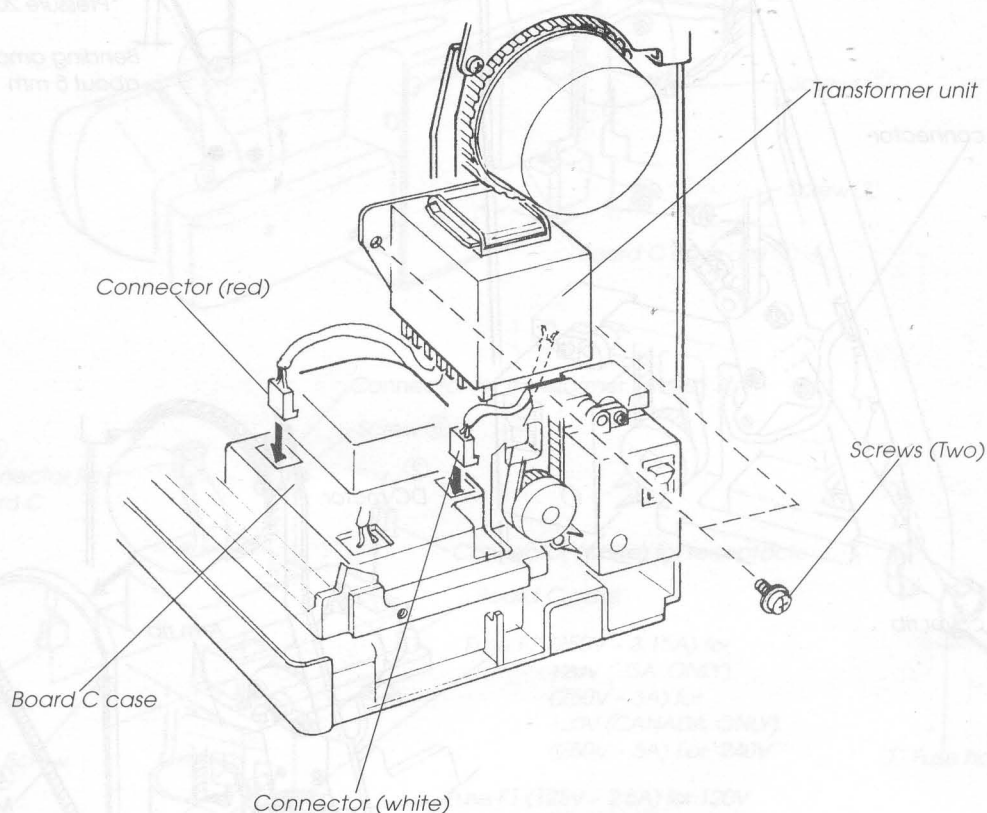
TO CHANGE THE TRANSFORMER

TO REMOVE

1. Remove the front panel (board A unit). (see page 38.)
2. Remove two connectors of transformer from C board case unit.
3. Remove the two screws and pull out the transformer.

TO ATTACH

4. Follow the above procedure in reverse.



TO CHANGE THE RECEPTACLE (MACHINE SOCKET UNIT)

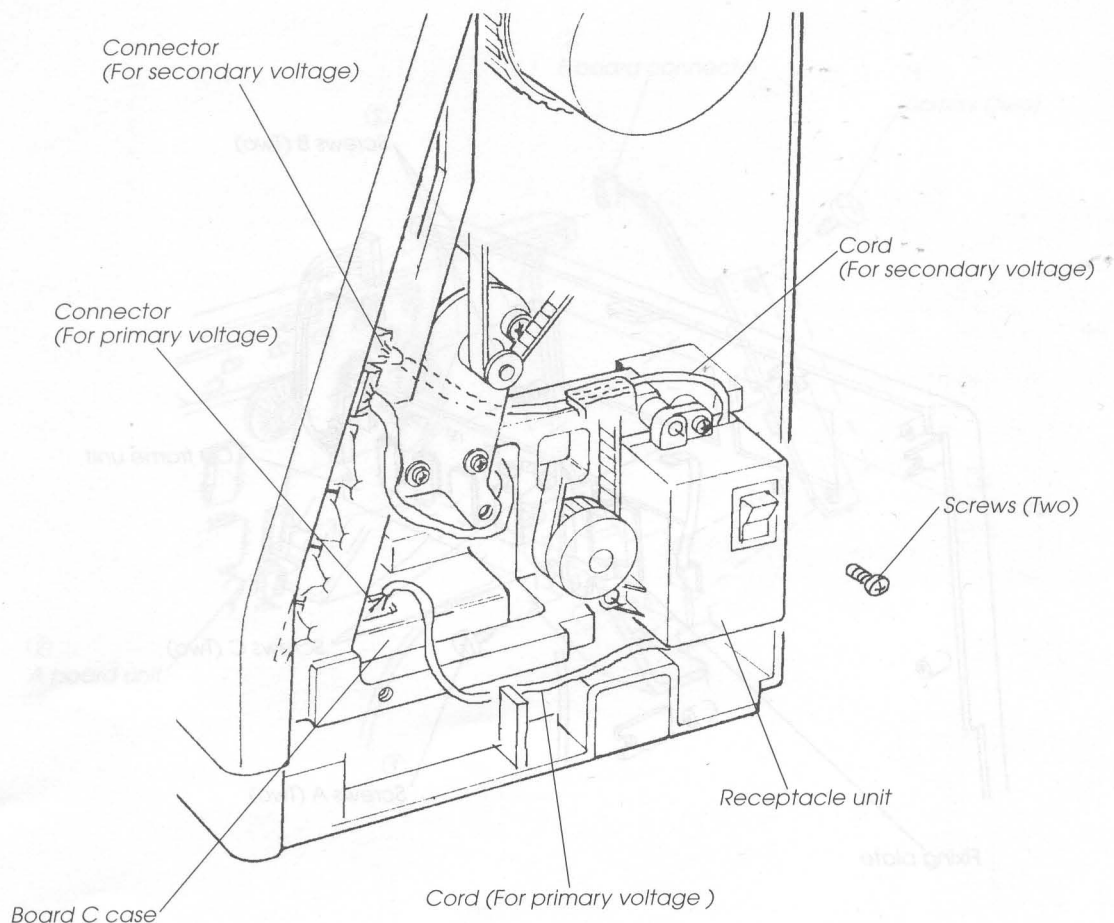
TO REMOVE

1. Remove the belt cover and the front panel.
2. Pull out the connectors from board A unit and board C case unit.
3. Remove two set screws and change the receptacle (machine socket unit).

TO ATTACH

4. Follow the above procedure in reverse.

* Pass the cord as shown below.



TO CHANGE THE LCD UNIT

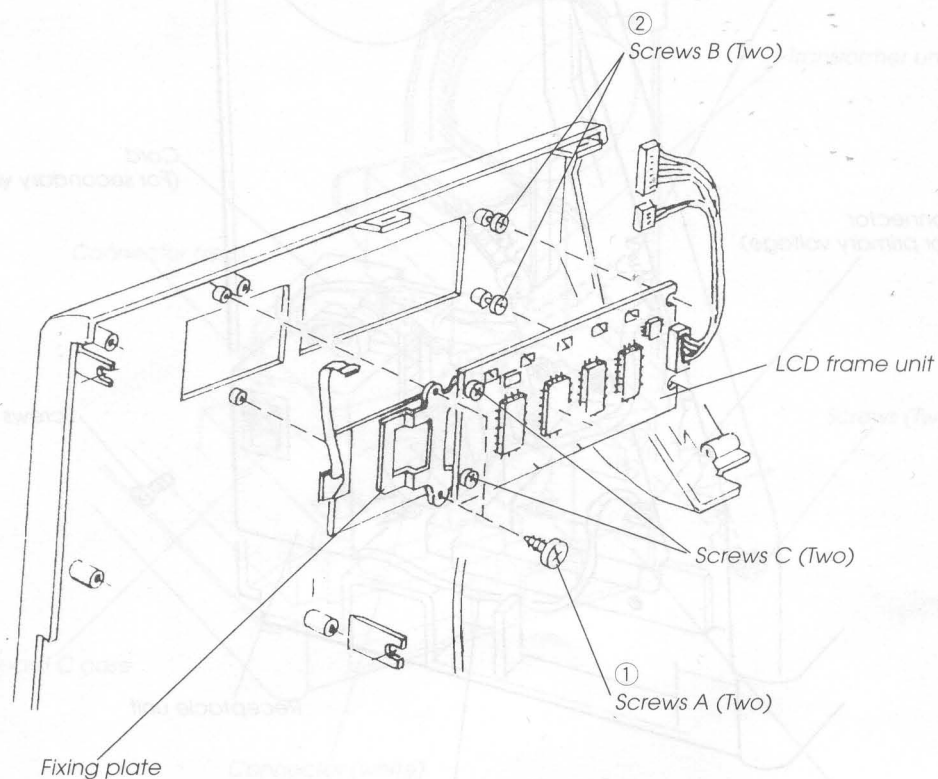
TO REMOVE

1. Remove the front cover (board A). (see page 38, 39)
2. Remove two screws A and loosen two screws B. Then remove the LCD frame unit.
3. Remove two screws C and remove the fixing plate.

TO ATTACH

4. Follow the above procedure in reverse.

NOTE: Check the adjustment of touch panel when LCD frame unit is replaced.



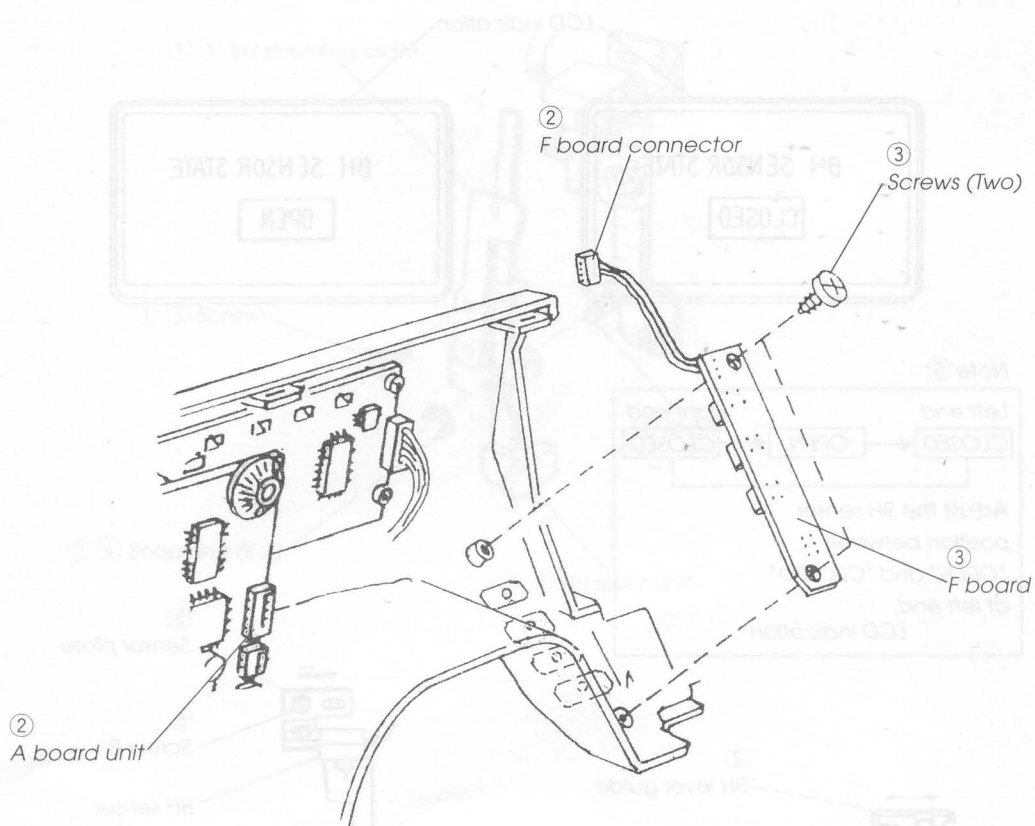
TO CHANGE THE "F" BOARD UNIT

TO REMOVE

1. Remove the front panel unit. (see page 38.)
2. Pull out the "F" board connector from the "A" board unit.
3. Remove the two set screws and change the "F" board unit.

TO ATTACH

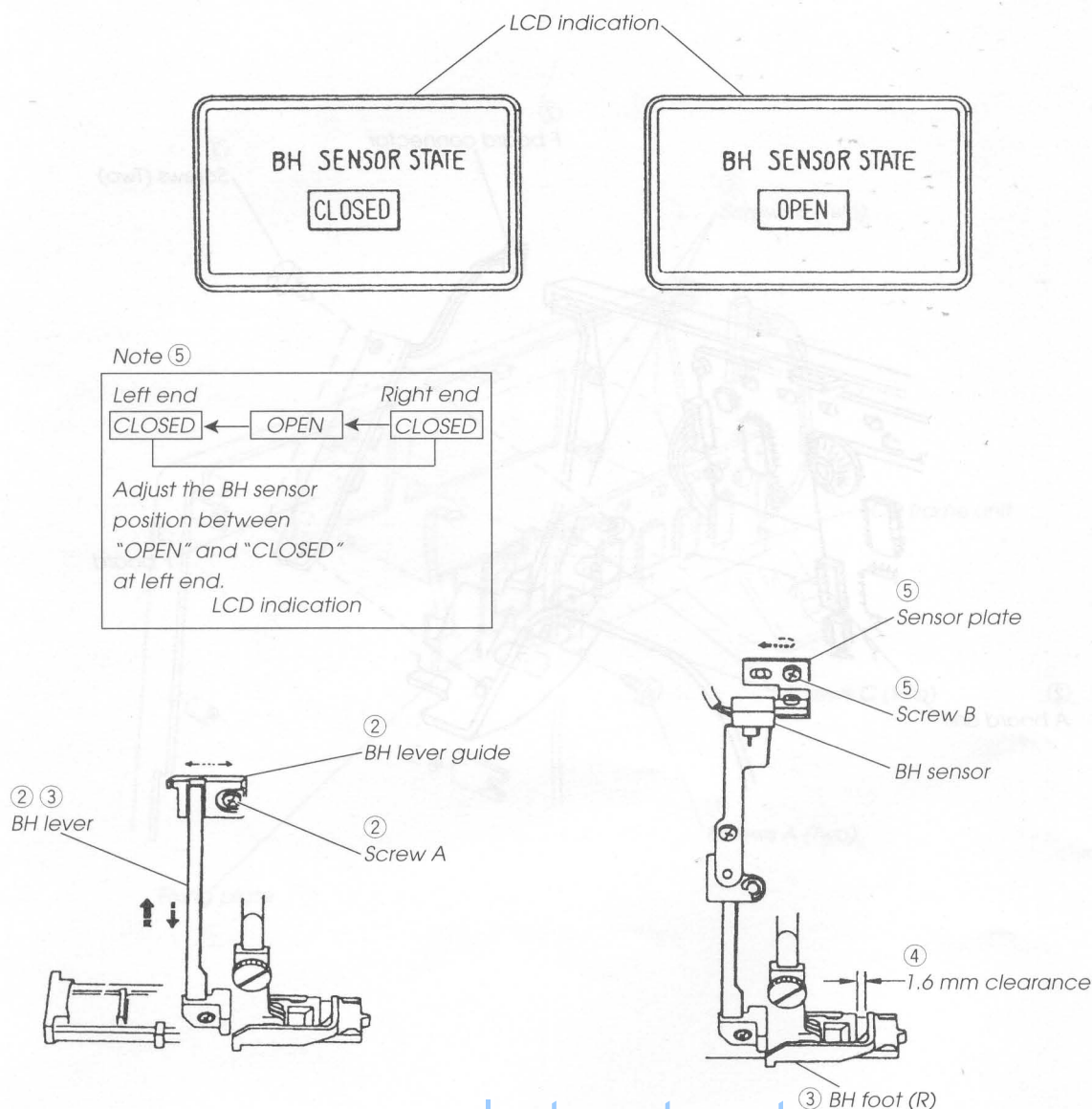
4. Follow the above procedure in reverse.



TO ADJUST THE BUTTONHOLE LEVER

1. Enter adjusting mode.
(Press the S/S key and the reverse key while turning the power switch on. Then press the lock stitch key and needle up/down key in turn within seconds.)
The LCD screen shows "BH SENSOR STATE CLOSED".
2. Loosen screw "A" and move the BH lever guide. The LCD screen should show "OPEN" when the BH lever is raised and lowered.
3. Attach the BH foot (R) and lower the BH lever.
4. Put a 1.6 mm gauge in between the sliding part of the automatic buttonhole foot and its end, as shown.
5. Loosen set screw "B". Move the sensor plate from right to left. Tighten the screw just as the LCD screen shows "CLOSED".
6. Make sure the LCD still says "CLOSED" when the BH foot "R" clearance is reduced to 1.4 mm and "OPEN" when the clearance is increased to 1.8 mm.

NOTE: The LCD screen shows (1) CLOSED (2) OPEN (3) CLOSED when the sensor plate is moved from right to left on STEP 5. Adjustment should be set from (2) OPEN to (3) CLOSED position.



TO CHANGE THE BH LEVER (UNIT)

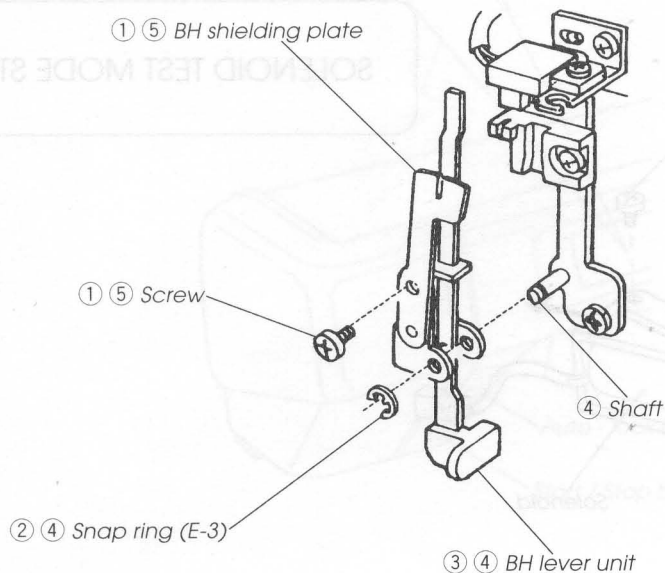
TO REMOVE

1. Loosen screw and remove the BH shielding plate.
2. Remove the snap ring.
3. Pull out the BH lever unit.

TO ATTACH

4. Slide the BH lever unit (without BH shielding plate) onto the shaft as shown below and put the snap ring on the shaft.
5. Attach the BH shielding plate with the screw.

NOTE: Adjust the BH lever position after replacing it.



TO ADJUST THE SOLENOID

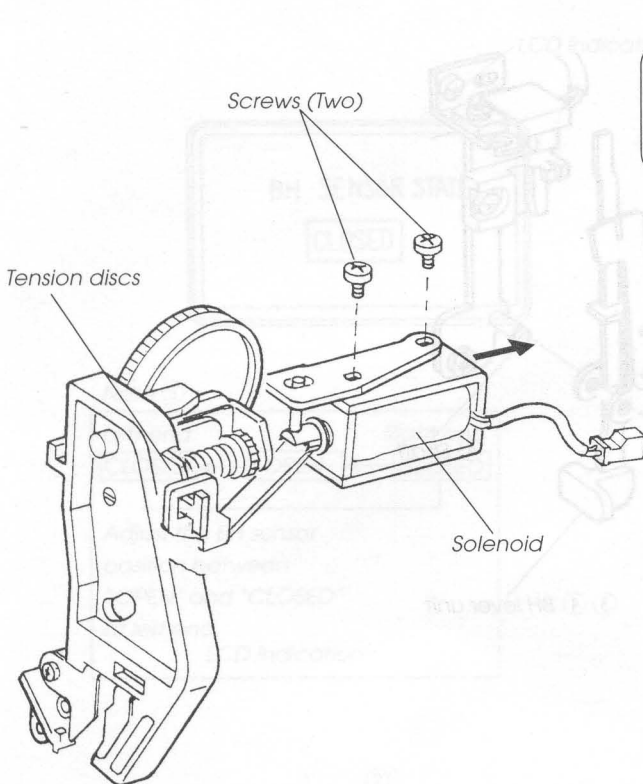
1. Remove the face plate. (see page 22.)
2. Lower the presser foot lifter. Then loosen the two screws.
3. Push the solenoid fully to the right. Then tighten the screws.
4. Act "SOLENOID TEST".

* Turn on the power switch while pressing the auto-lock button.

"SOLENOID TEST MODE START" should appear on the screen.

Make sure that the tension discs are open.

(The thread should not have any resistance when it is passed between the tension discs after the solenoid is moved to the right.)

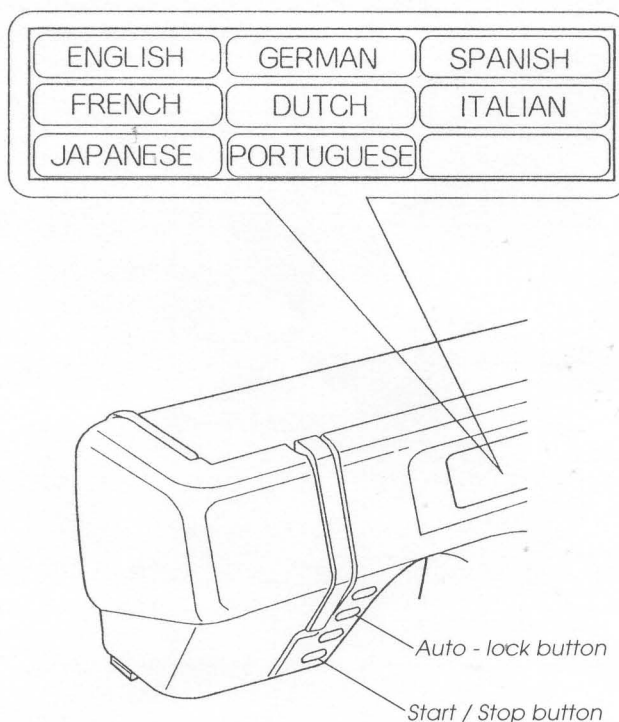


LCD message

SOLENOID TEST MODE START

TO CHANGE THE DISPLAY LANGUAGE

1. Turn on the power switch while pressing the Start / Stop button and Auto-lock button.
(Selection keys should appear on the LCD screen.)
 2. Select the language you need.
 3. Turn off the power switch.
- * It is not necessary to press the above "Secret key combination" on newer machines, which allow users to select display language by themselves.



(CHECKING)

Turn on power switch.

- If nothing is happened on the machine; ① Check all wire connections. Rep. ② Socket ③ A-board
- If LCD back light doesn't turn on; Rep. ① LCD ② A-board
- If LCD shows nothing; Rep. ① LCD ② A-board
- If sewing light doesn't turn on; Rep. ① Sewing light ② A-board

(NOTE)

- Be cautious in checking operation since the machine may suddenly start running.

(PREPARATION)

- Turn off power switch.
- Set the bobbin winder spindle to the left. • Raise feed dog.
- Detach the presser foot and raise presser foot lifter. • Move needle bar to up position. • Connect

* At each step, press the following key.

If the result is the correct ----- NEEDLE UP / DOWN key.

If the result is the defective ----- AUTO-LOCK key

STEPS	TEST OPERATION	CORRECT CONDITION
01) BUZZER TEST	Turn on the power switch while pressing "REVERSE" key	• Buzzer sounds (LCD shows buzzer)
02) KEY TEST	Push "START/STOP" key • "REVERSE" key • "AUTO-LOCK" key • "NEEDLE UP/DOWN" key	LCD shows "PRESS S/S . REV . AL . U/D" • Buzzer sounds for next step
03) TOUCH PANEL TEST	• Press "PRESS THIS KEY" on left side • Press "PRESS THIS KEY" on right side Press appointed key Press This key	• Buzzer sounds and indicates "PRESS THIS KEY" • Buzzer sounds for next step
04) BOBBIN WINDER SWITCH TEST	• Shift the bobbin winder spindle to LEFT ↔ RIGHT position	LCD shows "SPOOL" • Buzzer sounds every time when bobbin is shifted
05) SPEED SETTING VOLUME TEST	LCD shows "SLIDING VOLUME" Push NEEDLE UP/DOWN key for next step.	
06) FOOT CONTROLLER TEST	• Press the foot controller fully and release it	LCD shows "CONTROLLER" • Buzzer sounds when foot controller released
07) PRESSER FOOT SENSOR TEST	LCD shows "FOOT LEVER" Push NEEDLE UP/DOWN key for next step.	
08) BUTTONHOLE SENSOR TEST	• Shift the BH lever back & forth gently	LCD shows "BH SENSOR STATE" • When lever is pulled toward you . . . indicates "CLO" • When lever is released buzzer sounds "O"
09) UPPER SHAFT POSITIONING SENSOR TEST	Turn the handwheel toward you to move the needle bar to highest position and lowest position	LCD shows "PH SENSOR" • LCD shows "BIGHT" when needle is • LCD shows "FEED" when needle is
10) STEPPING MOTOR TEST	• Raise the needle bar to highest position and push START/STOP key • Lower the needle bar to lowest position and push START/STOP key • Turn the handwheel and check the feed dog position	LCD shows "STEPPING MOTOR" • Stepping motor (zigzag) get default position • Feeding motor get default position • Feed dog goes to home position
11) MACHINE MOTOR TEST	• Press START/STOP key	LCD shows "DC MOTOR" • Machine runs slow, and fast, then the highest position

When all steps are done, press (NEEDLE UP / DOWN key) LCD shows "SELF CHECK END" and result of diagnosis.

CRAFT 5000 DIAGNOSIS CHART

Rep. ② Socket ③ A-board ④ C-board ⑤ Transformer

art running.

to up position. • Connect the foot control. • Lower the BH lever.

CORRECT CONDITION	DEFECTIVE CONDITION & CORRECTION	
unds (LCD shows buzzer)	• No buzzer sounds and could not enter test mode • LED module shows program version. Also, program will be locked	• Replace board F • Replace board A
"PRESS S/S . REV . AL . U/D KEY" unds for next step	• No buzzer sounds and program will be locked	• Replace board F • Replace board A
unds and indicates KEY" unds for next step	• No buzzer sounds and program will be locked	• Replace touch panel • Replace board A
"SPOOL" unds every time when bobbin winder spindle	• No buzzer sound	• Replace board A
"CONTROLLER" unds when foot controller is pressed fully and	• No buzzer sound	• Replace foot controller • Replace board A
"BH SENSOR STATE" ver is pulled toward you buzzer sounds & indicates "CLOSED" on LCD board ver is released buzzer sounds & indicates "OPEN" on LCD board	• No buzzer sound	• Replace BH sensor • Replace board F • Replace board A
"PH SENSOR" vs "BIGHT" when needle is at highest position ws "FEED" when needle is at lowest position	• LCD does not show "BIGHT" or "FEED" Also LCD does not change indication while turn ing handwheel	• Replace upper shaft position ing sensor • Replace "A" board
"STEPPING MOTOR" g motor (zigzag) get default position motor get default position g goes to home position	• Not working correctly	• Replace stepping motor • Replace "A" board
"DC MOTOR" e runs slow, and fast, then needle bar stops at est position	• Not stopping at the highest position or running at uneven speed	• Replace DC motor • Replace "A" board

d result of diagnosis.