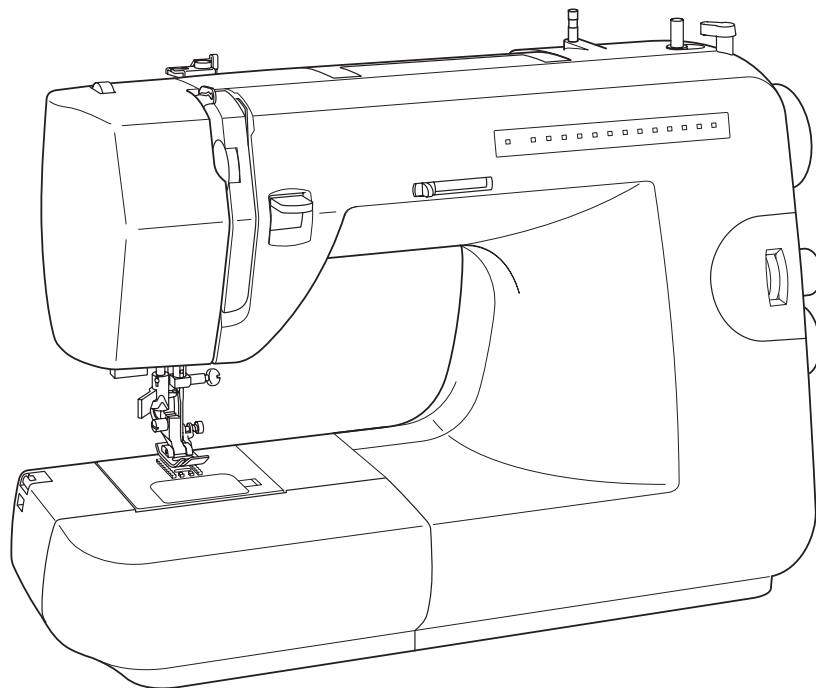


JUKI®

SEWING MACHINE

HZL-35Z

SERVICE MANUAL

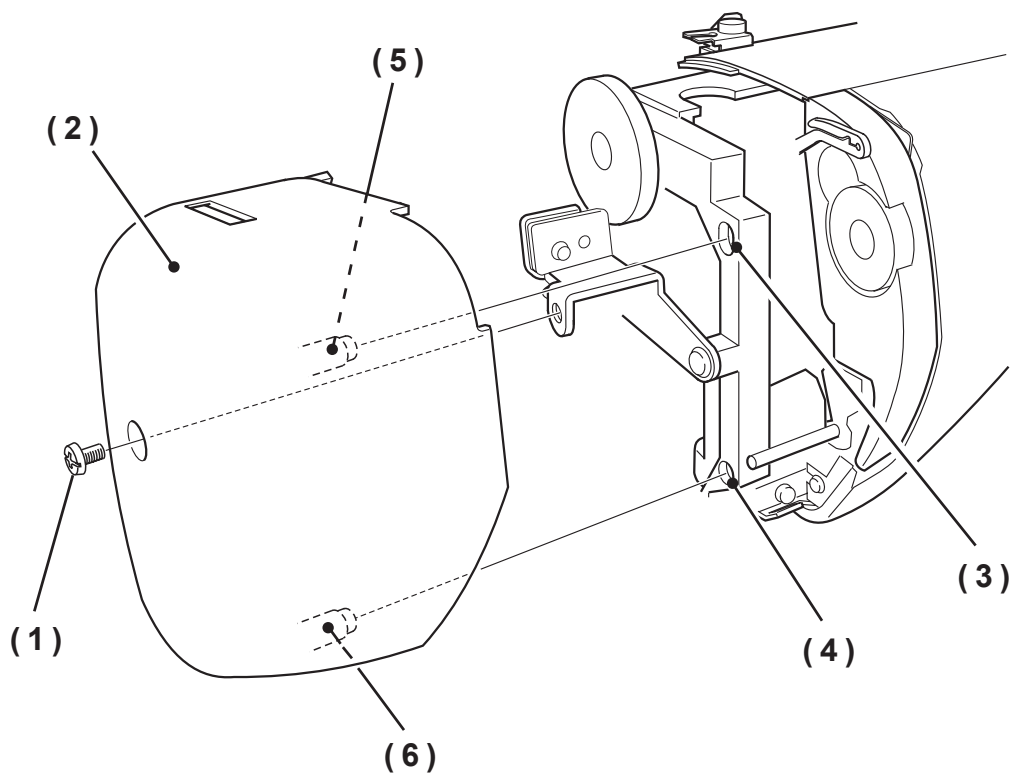


[1] DISASSEMBLING OF OUTER PARTS

1. Face cover

Disassembling

1. Remove screw (1) and take out face cover (2).

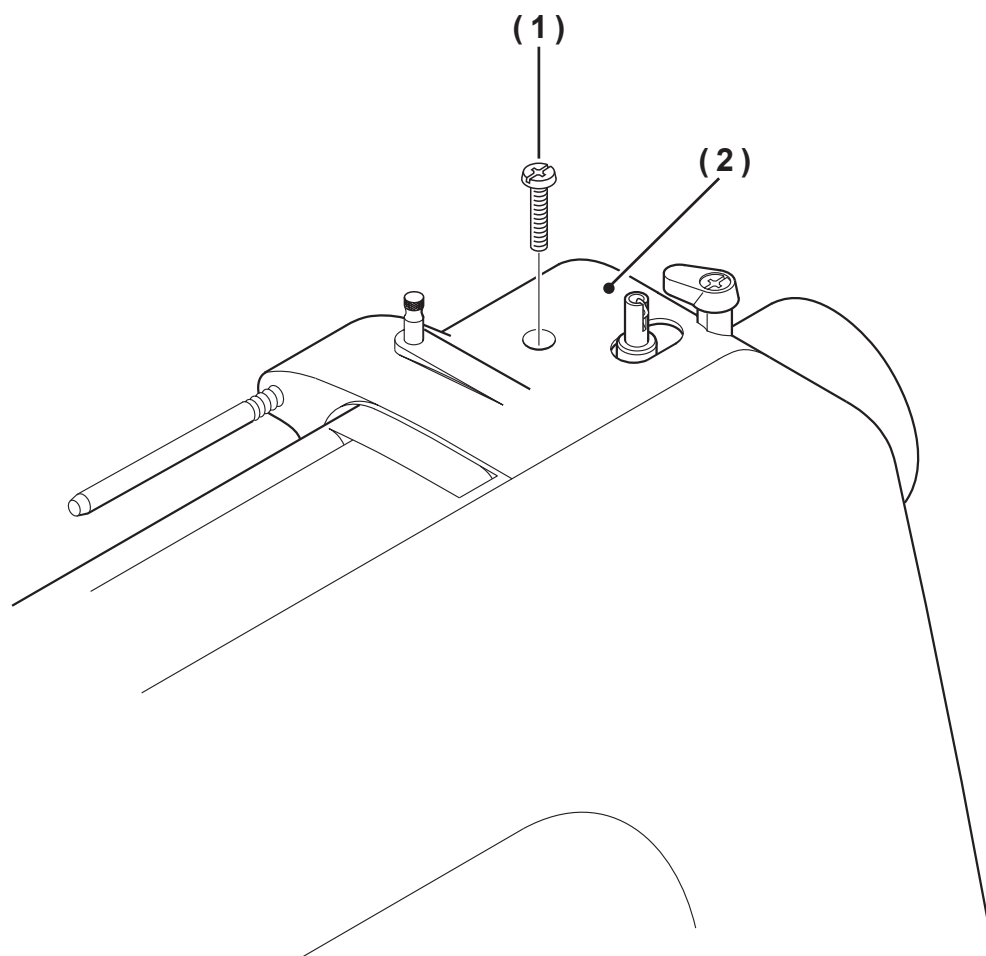


Re-assembling

1. Insert juts (5), (6) of face cover (2) into holes (3), (4) of arm.
2. Fix screw (1) fitting face cover profile to arm profile.

2. Spool Pin Stand Disassembling

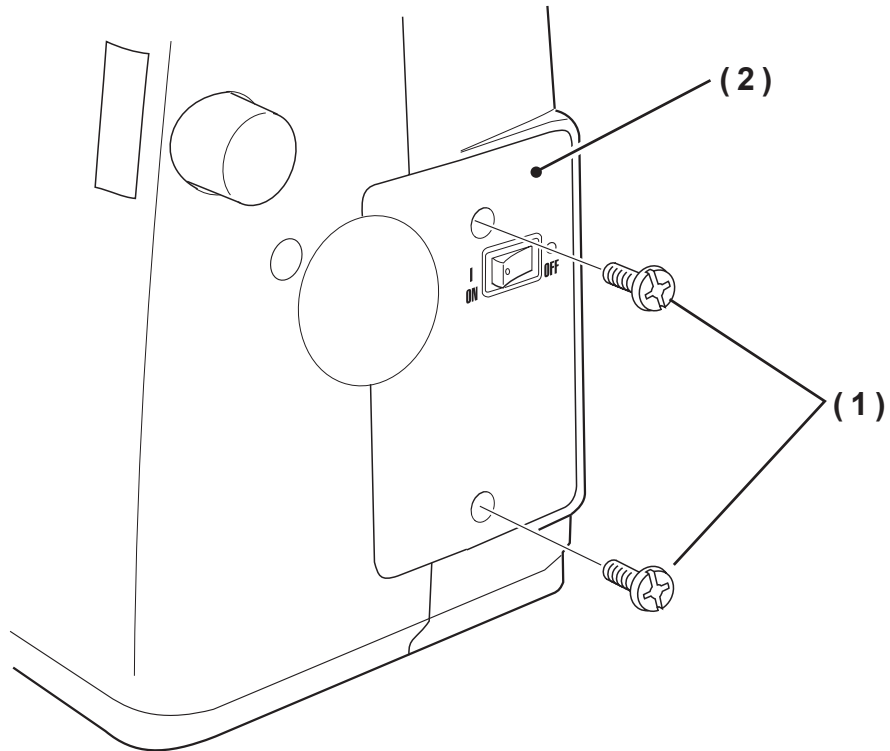
1. Remove screw (1) and take out spool pin stand (2).



* Re-assembling should be done in the reverse way.

3. Terminal Cover Disassembling

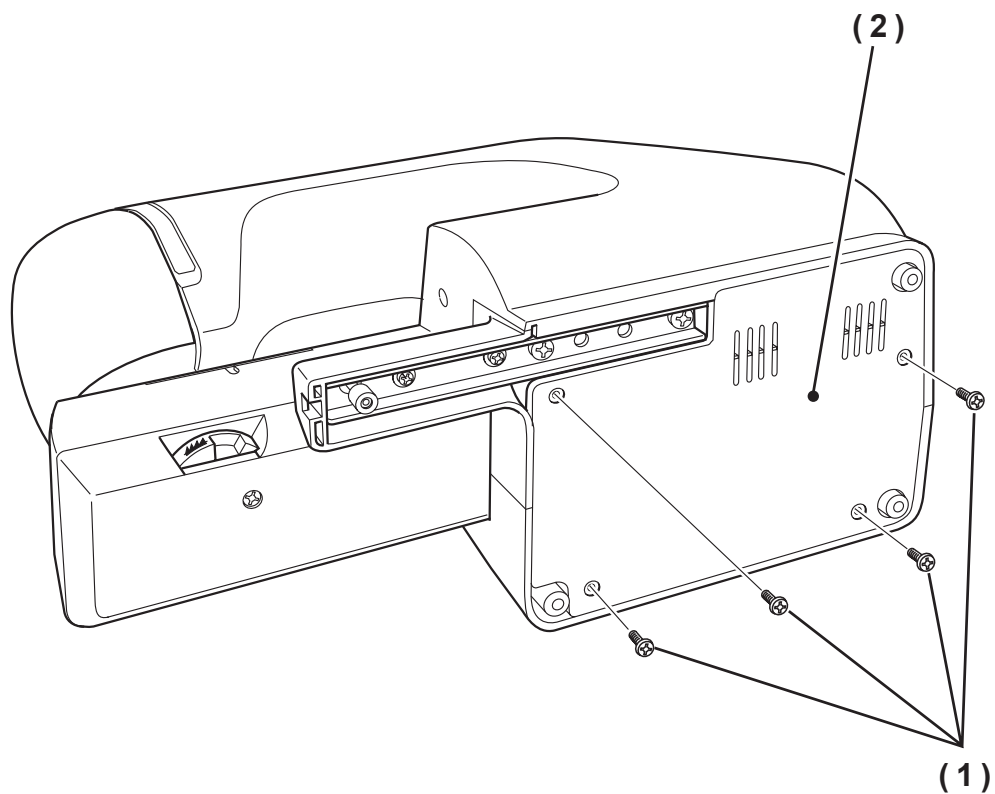
1. Remove each screw (1) and take out terminal cover (2).
 - * Note that cord is connected inside of the cover.



- * Re-assembling should be done in the reverse way.
- * While re-assembling, any cord and timing belt should not be connected each other.

4. Base Cover

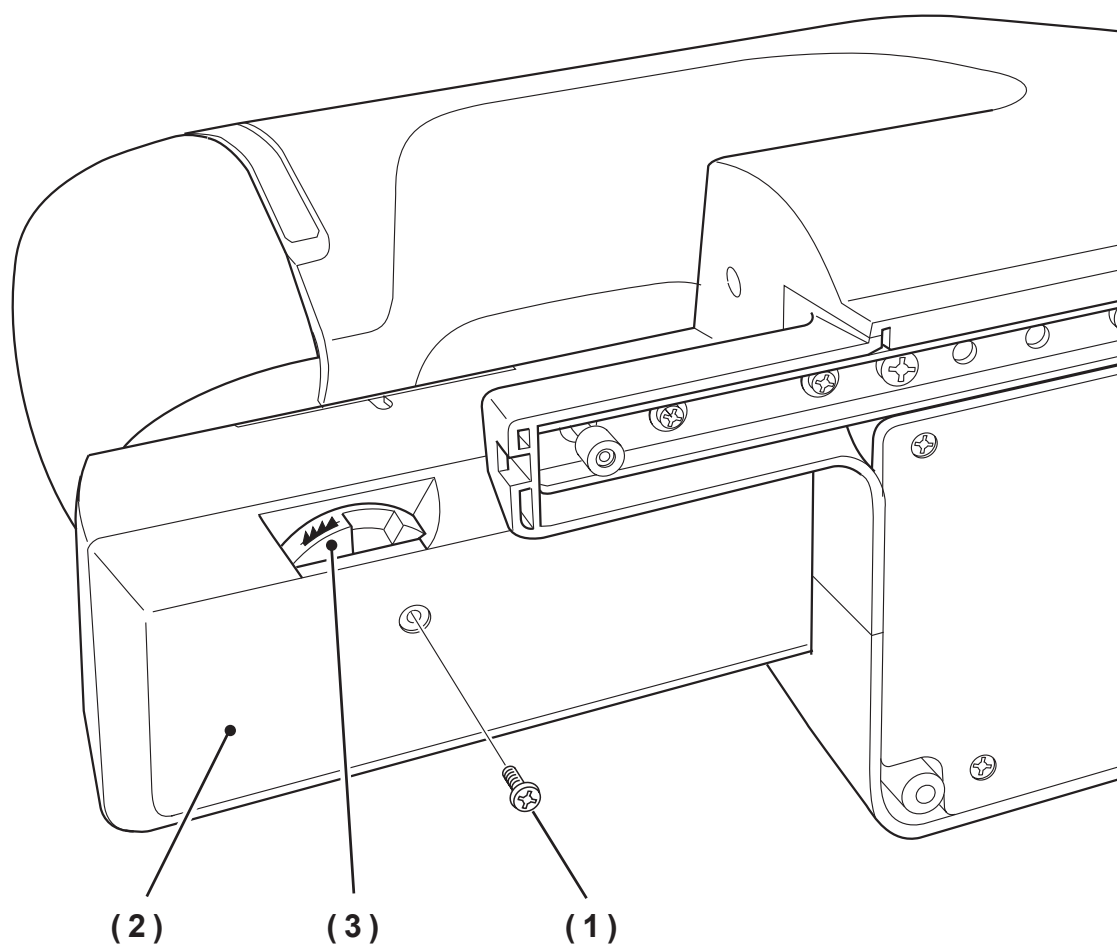
1. Lay machine on its back.
2. Remove 4 screws (1) and take out base cover (2).




* Re-assembling should be done in the reverse way.

5. Bottom Cover

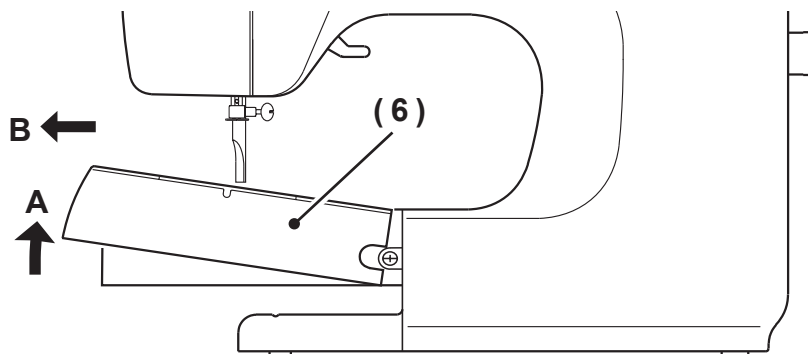
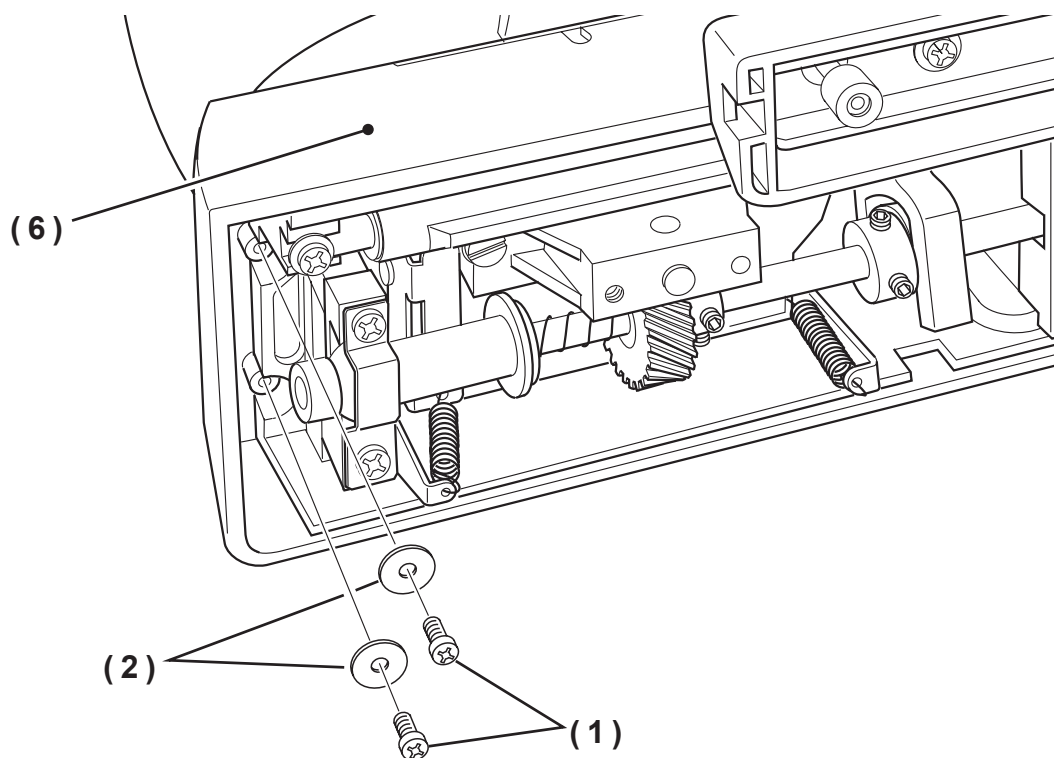
1. Lay machine on its back.
2. Remove screw (1) and take out base cover (2).



- * Re-assembling should be done in the reverse way.
Feed dog control (3) should be set at up position () before re-assembling.

6. Bed Cover

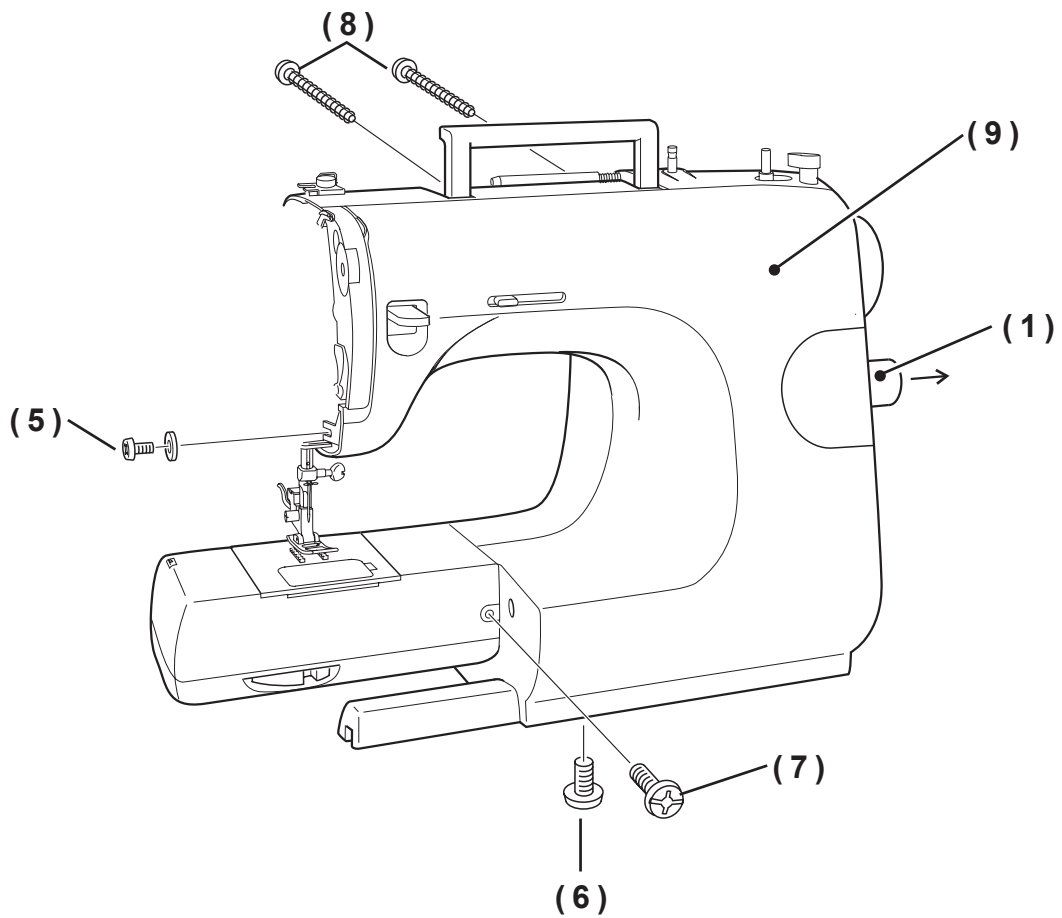
1. Remove presser foot and needle plate.
 2. Turn hand wheel toward you until needle comes to its highest point.
 3. Lay machine on its back.
 4. Remove bottom cover from free arm. (See page 5)
 5. Remove 2 screws (1) and 2 washers (2).
 6. After lifting up bed cover (6) toward direction A, take it out toward direction B.
- NOTE: Lift presser foot lever to its highest position for easy removal.



* Re-assembling should be done in the reverse way.

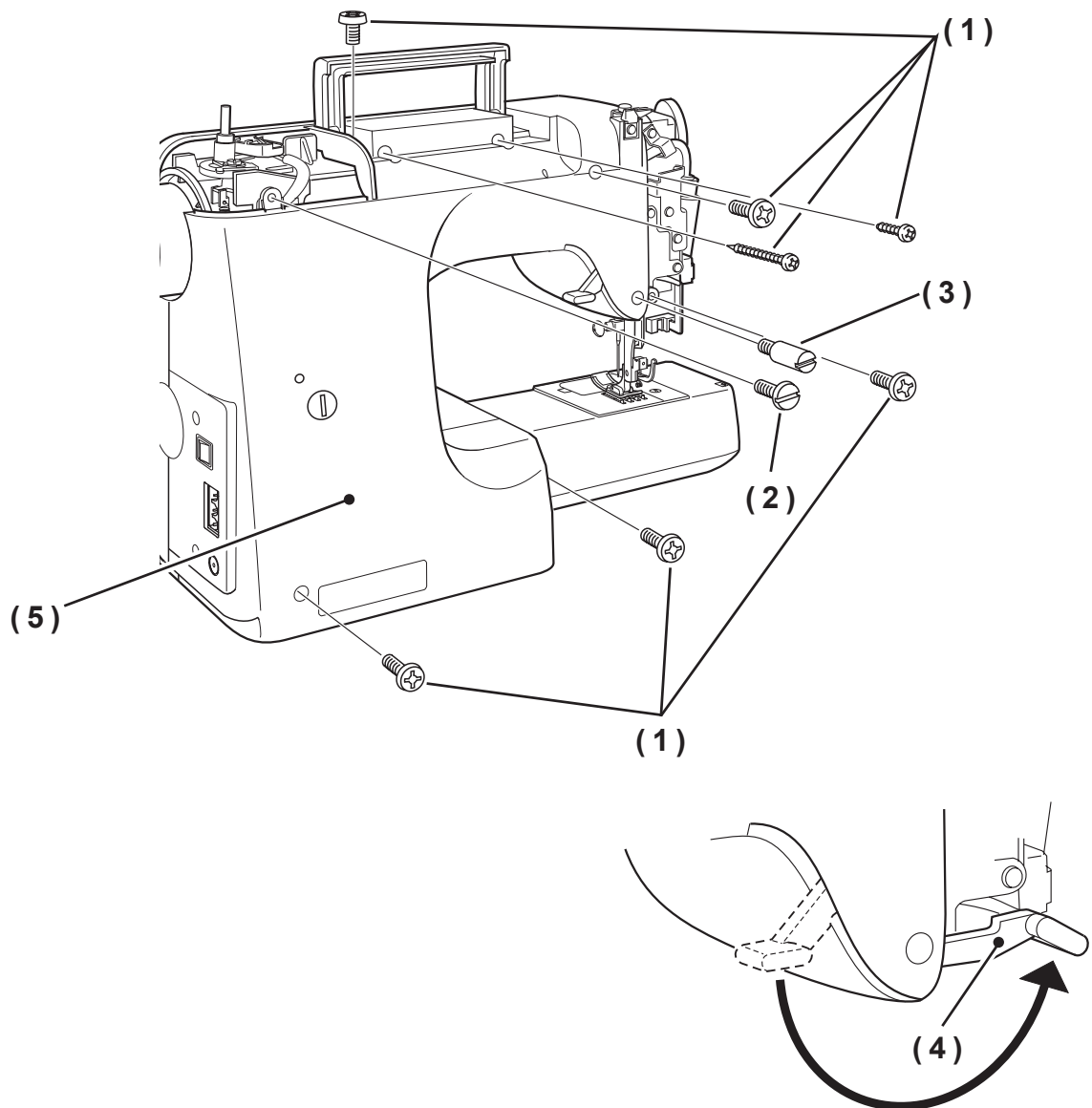
7. Front Cover

1. Remove face cover and base cover (see page 1 and 5).
2. Remove stitch length dial (1).
3. Loosen screws (5 and 6) and remove screws (7 and 8).
4. Remove front cover (9) from face cover side, as stitch length dial shaft is sticking out.



8. Back Cover

1. Remove face cover, spool pin stand and base cover. (See page 1, 2, 5)
2. Remove 7 plus screws (1) and minus screws (2).
3. Remove screw (3) and turn presser foot lever (4) toward face cover.
4. Remove back cover (5).

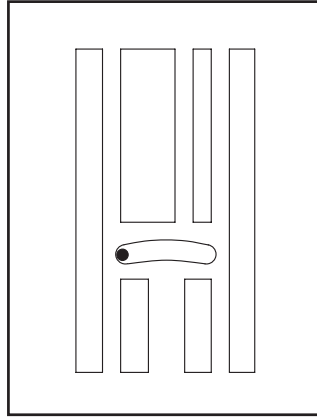


* Re-assembling should be done in the reverse way.

2 - 1 L - Positioner

Checking:

1. Move the needle to the left end by hand.
2. Check if the needle touches the left end of needle hole of needle plate.

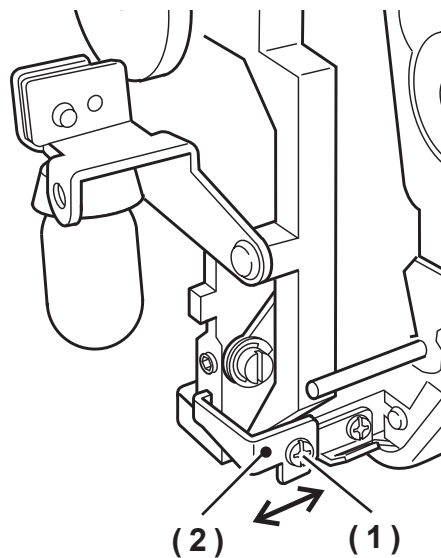


- NOTE: * Needle will be broken if needle is outside of left end of needle hole.
* Selector dial can not be turned smoothly if there is clearance over 0.3mm between left end of needle hole and needle.

Adjustment:

NOTE: Unplug the machine from electrical outlet before adjustment.

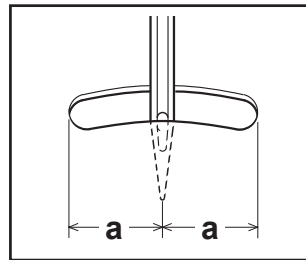
1. Remove face cover.
2. Loosen screw (1) and shift needle bar limiter (2) in either direction for adjustment.



2 - 2 Needle Position at Straight Stitching

Checking:

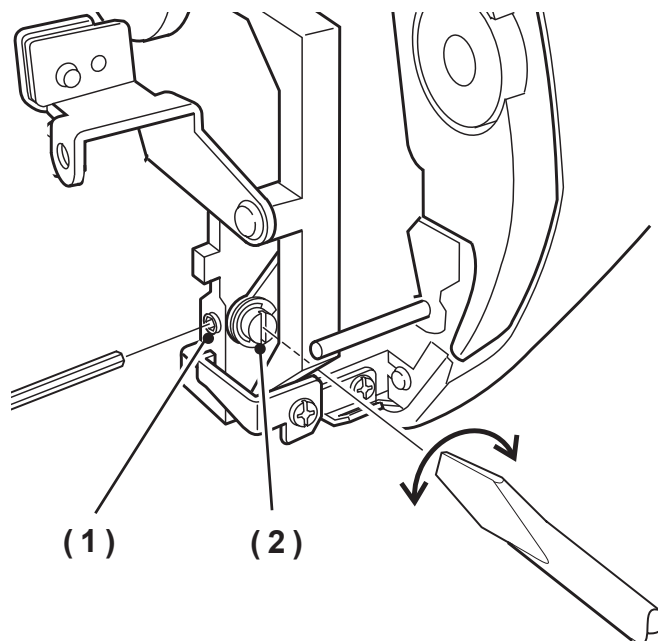
1. Remove presser foot.
2. Set machine for straight stitching at center needle position.
3. Turning hand wheel by hand, lower the needle and check if needle point comes to the center of needle plate hole.



Straight stitching

Adjustment:

1. Remove face cover.
2. Loosen screw (1).
3. Turning eccentric pin (2), adjust needle position.
4. Tighten screw (1) after adjustment.



2 - 3 Needle Position at Zigzag Stitching

NOTE: This adjustment is only for model with stitch width control.
Before checking, follow 2 - 2 "Needle position at straight stitching".

Checking:

1. Remove presser foot.
2. Set stitch width control at the maximum position and stitch selector at zigzag stitch.
3. Turn hand wheel by hand and see if needle leaves the same clearance at both right and left end of needle plate hole.

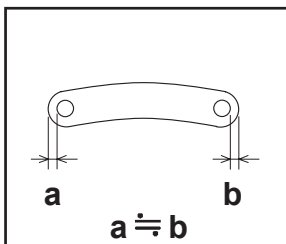


Fig. 1 ○

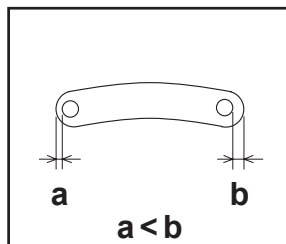


Fig. 1 ✕

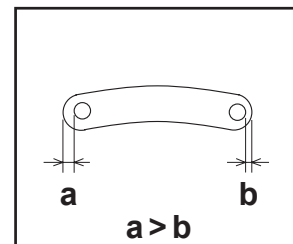
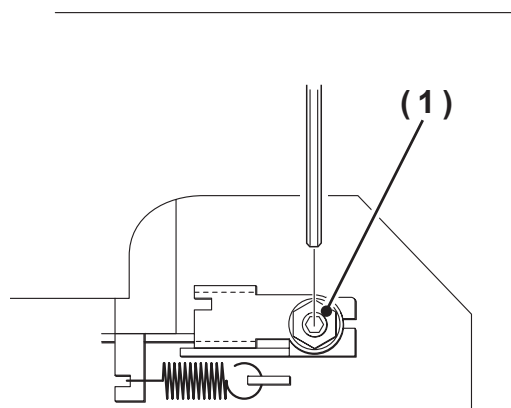


Fig. 1 ✕

Adjustment:

1. Remove back cover.
2. Turn screw (1) in either direction to correct the condition.

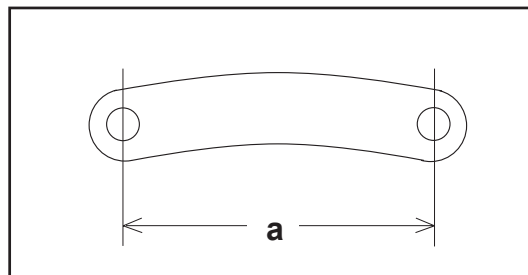


2 - 4 Maximum Zigzag Width

NOTE: This adjustment is only for model with stitch width control.
Follow 2 - 2 "Needle position at straight stitching" and 2 - 3 "Needle position at zigzag stitching" before checking.

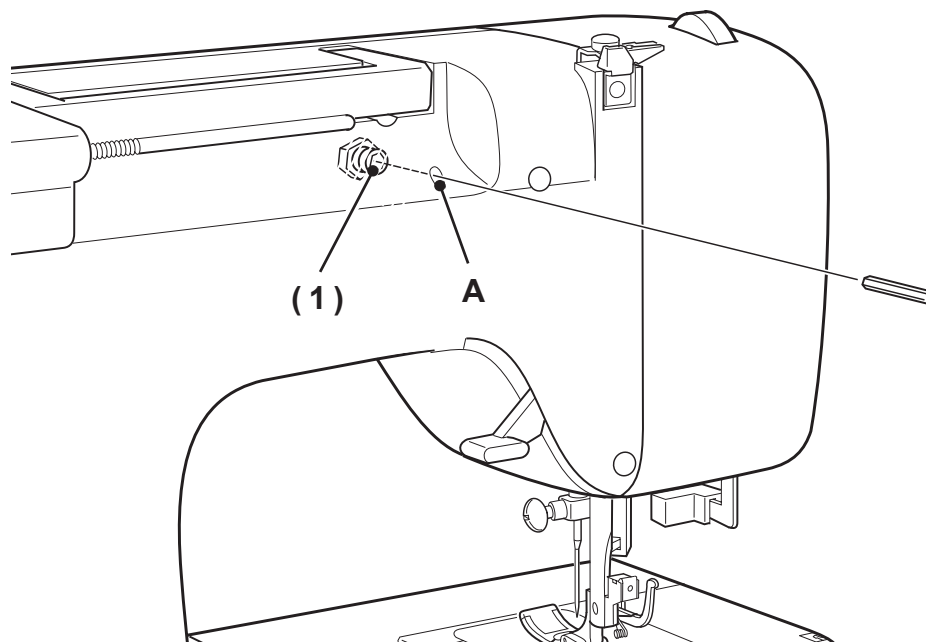
Checking:

1. Set width control lever at the maximum and stitch selector at "zigzag".
2. Check to see if zigzag width "a" is more than 6mm.



Adjustment:

1. Set width control lever at the maximum.
2. Insert screw driver through hole A, and turn screw (1) in either direction to correct the condition.
3. If screw (1) is turned anti-clockwise, set width control lever at the maximum and stitch selector at "zigzag" and recheck to see if width is correct.

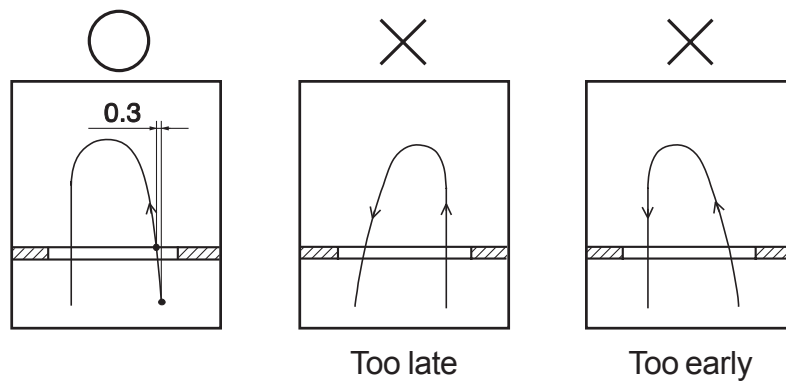


Note: Recheck needle timing to shuttle (2-17) and needle clearance to shuttle (2-16).

2 - 5 Needle Side Motion

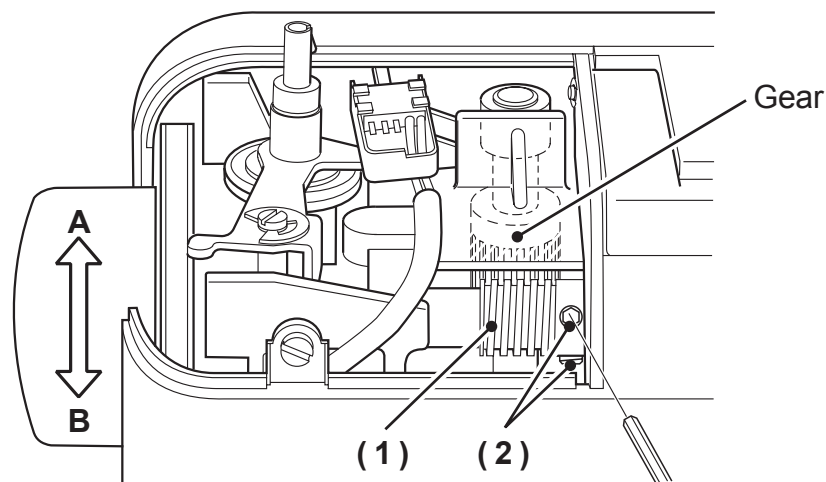
Checking:

1. Set stitch width control at maximum.
2. Bring needle to right-hand lowest position. Slowly lift up needle and observe its leftward movement when leaving upper surface of needle plate.
3. Needle should move to left in the range of less than 0.3 mm when needle point goes through needle plate.
4. Following (×) marked illustrations indicate wrong situation.



Adjustment:

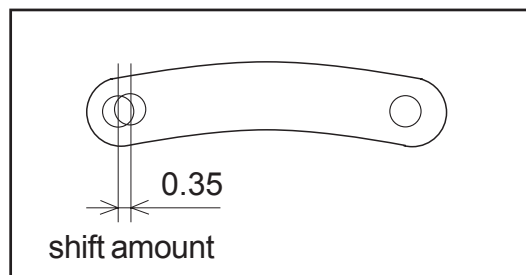
1. Remove spool pin stand.
2. Insert screw driver from back side. Loosen one of 2 screws (2) on worm gear (1). Another one should be tightened temporarily.
3. Holding worm gear (1), turn hand wheel and adjust the angle of worm gear against gear.
4. Tighten 2 screws (2) securely after adjustment.



2 - 6 Clearance between Zigzag Cam and Cam Follower

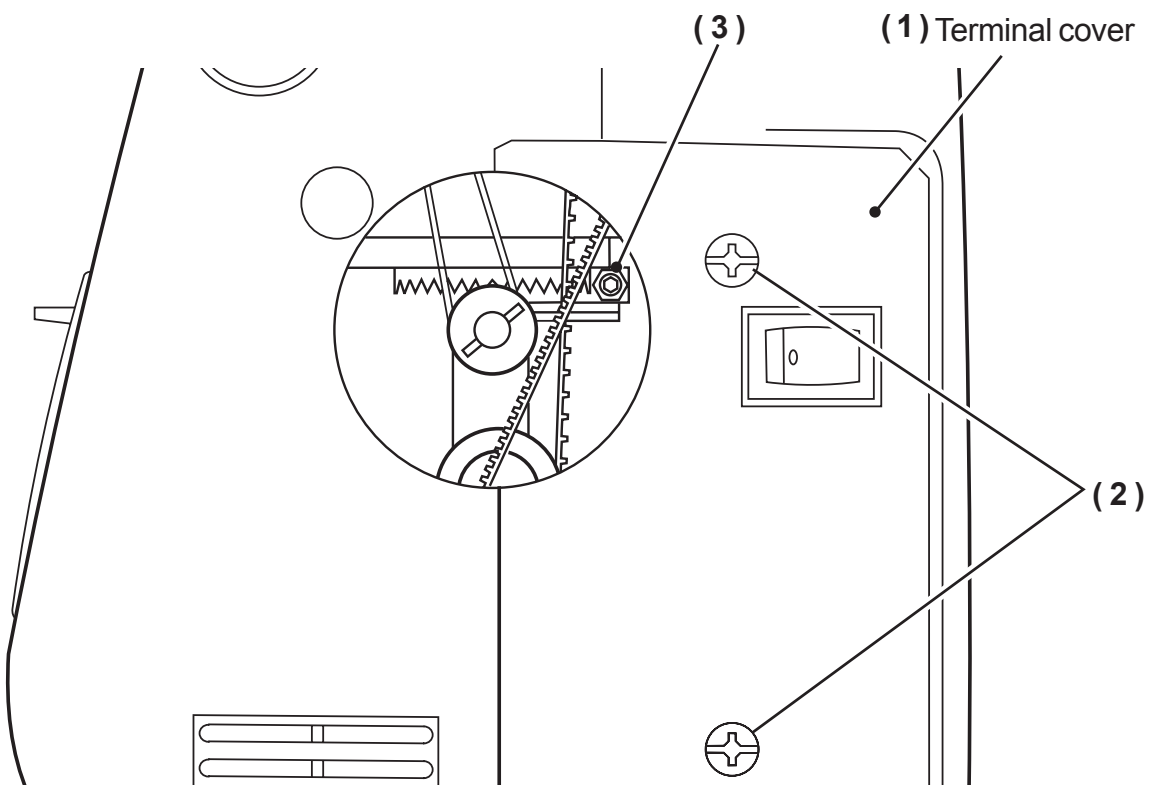
Checking:

1. Remove presser foot.
2. Set machine at maximum zigzag width.
3. Lower needle to its left lowest position.
4. Turn selector dial towards you (anti-clockwise) and set it between "zigzag stitching" and "blind stitching".
5. Check if needle point shifts a little from above "3" position to left.



Adjustment:

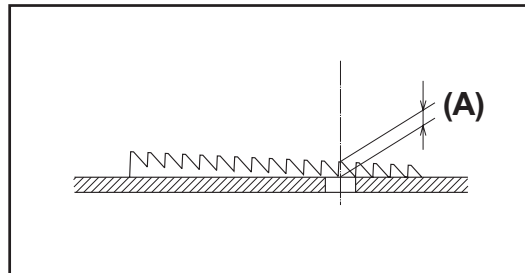
1. Remove two screws on terminal cover.
2. Adjust by turning screw (3).
 - Needle shift is zero or too little. → Turn screw clockwise.
 - Needle shift is too much. → Turn it anti-clockwise.



2 - 7 Feed Dog Height

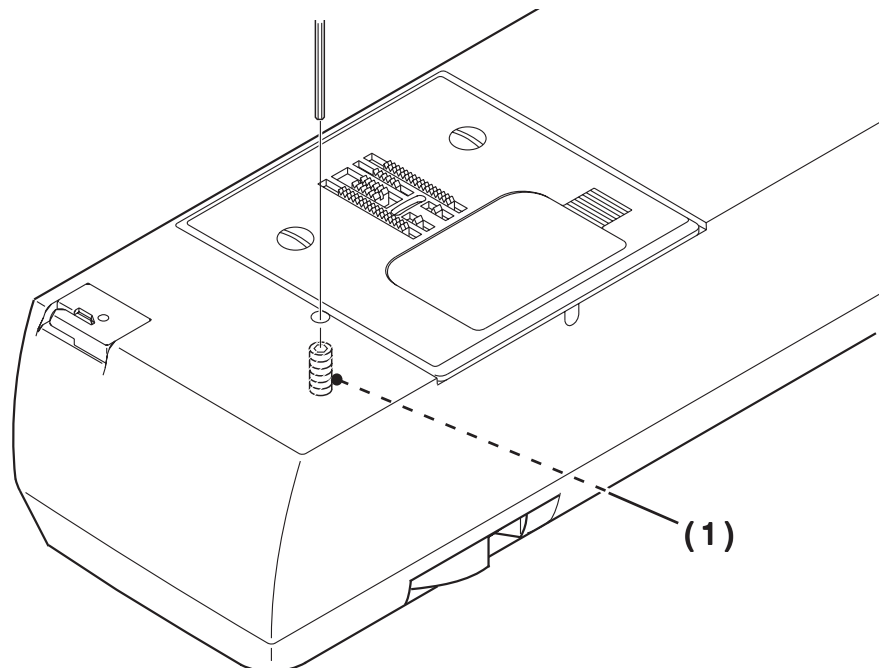
Checking:

1. Set stitch length control at maximum.
2. Remove needle and presser foot.
3. Set feed dog at highest position by turning hand wheel by hand.
4. Check to see if feed dog height (A) is 0.89 - 1.09 mm above needle plate.



Adjustment:

1. Set stitch length control at "0".
2. Turn hand wheel by hand until feed dog comes to its highest point.
3. Insert wrench through hole on bed cover and turn screw(1) in either direction to adjust feed dog height.
Feed dog is too low. → Turn screw clockwise.
Feed dog is too high. → Turn it anti-clockwise.
4. When you turn it anti-clockwise, confirm the height after pushing needle plate.

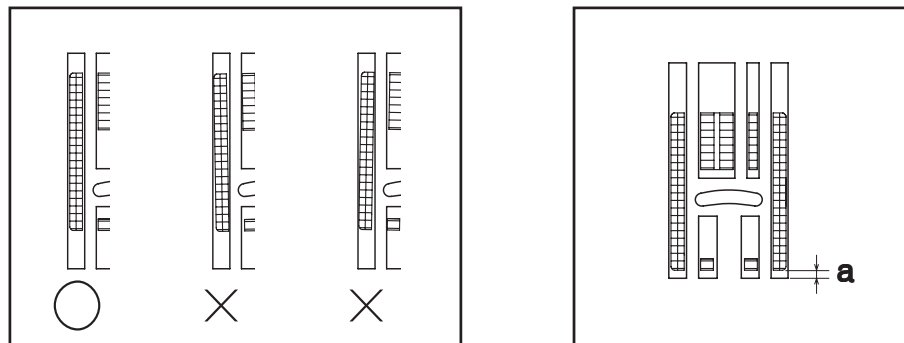


Remove needle plate if position of screw (1) is not clear.

2 - 8 Space Between Feed dog and Hole of Needle Plate

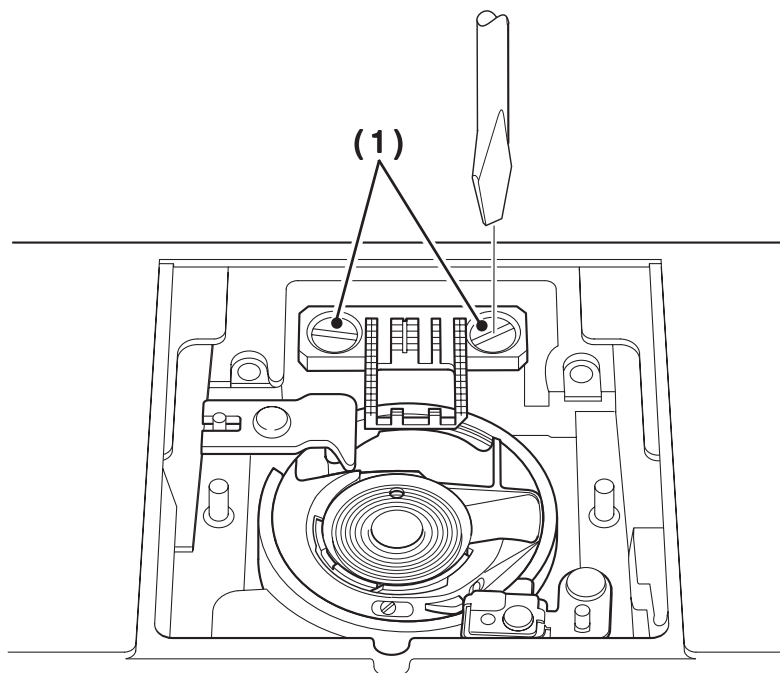
Checking:

1. Set stitch length control at maximum.
2. Confirm feed dog does not touch with to needle plate.
3. Confirm feed dog is parallel to needle plate hole.
4. Check to see if clearance (a) is about 1.0 mm, when feed dog shifts to the front end by turning hand wheel.



Adjustment:

1. Remove face cover and needle plate.
2. Loosen screw (1) of feed dog and adjust the position.
3. Tighten screw (1) firmly after adjustment.



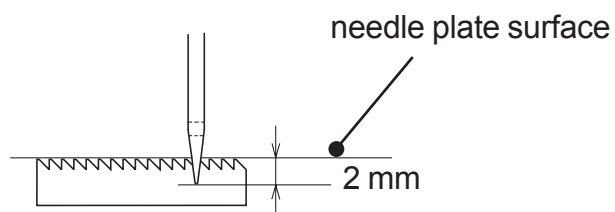
2 - 9 Feed Dog Timing

1) Vertical Movement

NOTE : Before checking, follow Section 2 - 7 "Feed Dog Height".

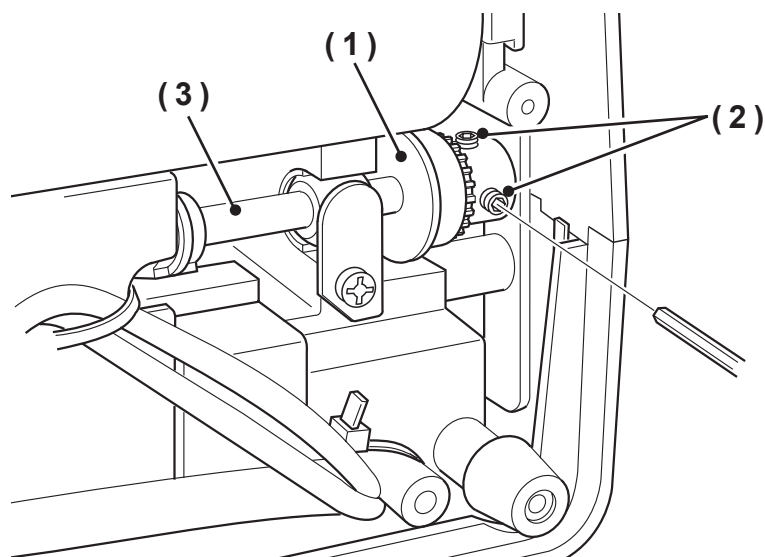
Checking:

1. Set stitch length at "maximum".
2. Lower needle by turning hand wheel.
3. Check to see if needle point is 2 mm below needle plate when feed dog is on a same level of needle plate.



Adjustment:

1. Remove base cover.
2. Loosen screws (2) on timing pulley (1).
3. Keeping lower shaft (3) at the same position, adjust feed dog timing by turning timing pulley (1).
4. Tighten screws (2) firmly after adjustment.



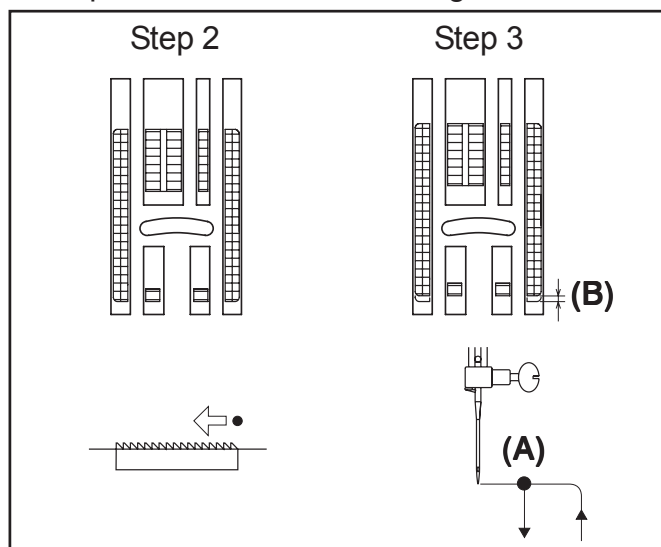
NOTE: Be sure to check "Lateral movement" in the next page and "Needle timing to shuttle (section 2 - 17)" after adjustment.

2) Lateral Movement

NOTE : Before checking, follow Feed dog Timing (vertical movement).

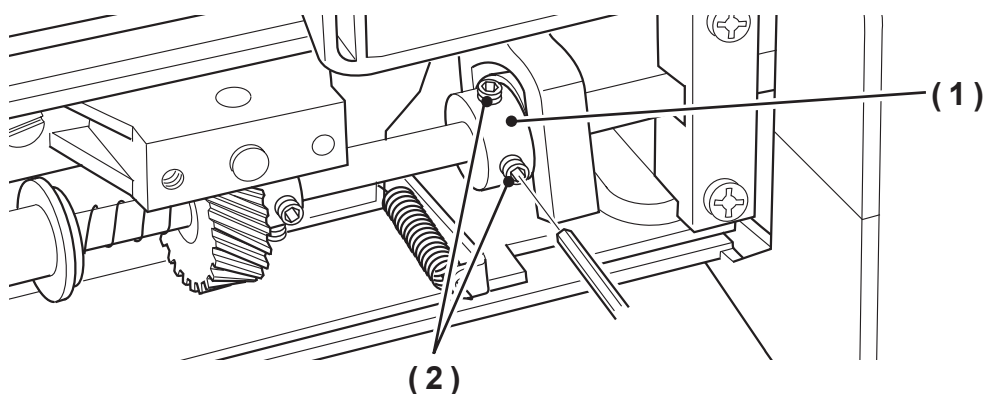
Checking:

1. Set stitch length at maximum.
2. Turn hand wheel until feed dog is about to start to move (when cam (1) starts to activate feed regulating arm).
3. Turning hand wheel, bring up needle bar to its highest dead point (A).
Check if total lateral movement (B) of feed dog during the period from Step 2 to Step 3 above is within the range of 0.3 - 0.6 mm.



Adjustment:

1. Remove base cover.
2. Loosen screws (2) on timing pulley (1).
3. Holding hand wheel, turn feed rocking cam (1) and adjust the angle of the cam to lower shaft.
4. Tighten set screw (2) securely after adjustment.



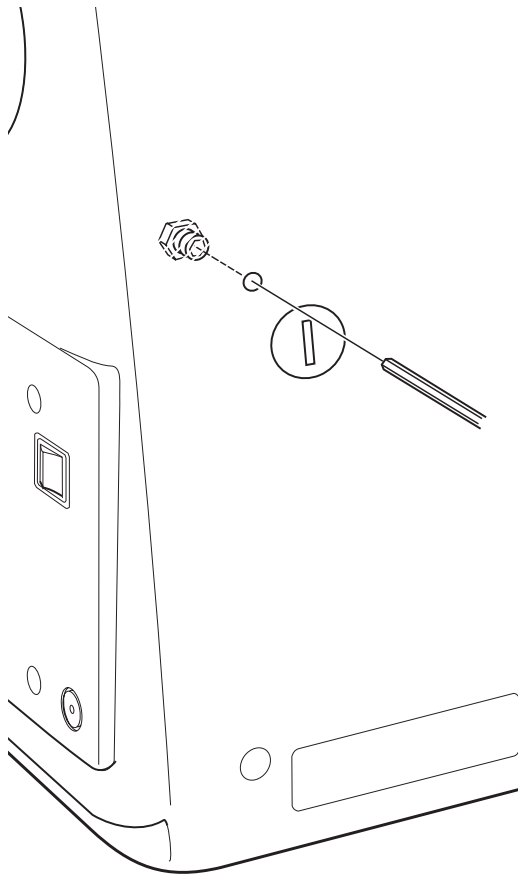
2 - 12 Buttonhole Sewing - '0' Feeding

Checking:

1. Set buttonhole fine turning adjuster at the center position.
2. Sew buttonhole using buttonhole foot.
3. Check to see if bartack does not move either backward or forward and keeps the same position.

Adjustment:

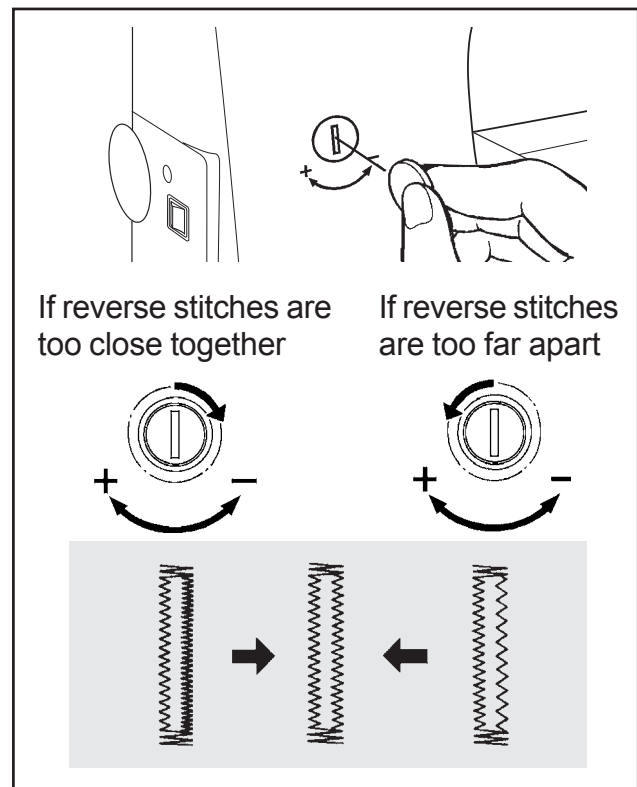
1. Insert hex screw driver through the hole and adjust screw inside of the machine.



ADJUSTING STITCH BALANCE

Stitch length differences in forward and reverse stitches of the buttonhole are equalized with the buttonhole stitch adjuster.

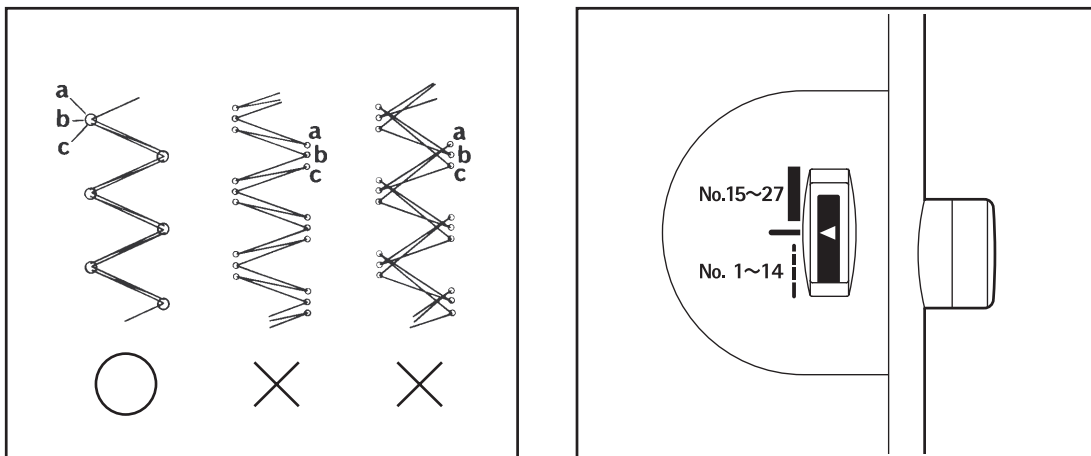
If the reverse stitches are too close together, turn the adjuster slightly clockwise using a coin as illustrated; if they are too far apart, turn anti-clockwise.



2 - 13 Balance of Stitch Length- Stretch Stitching

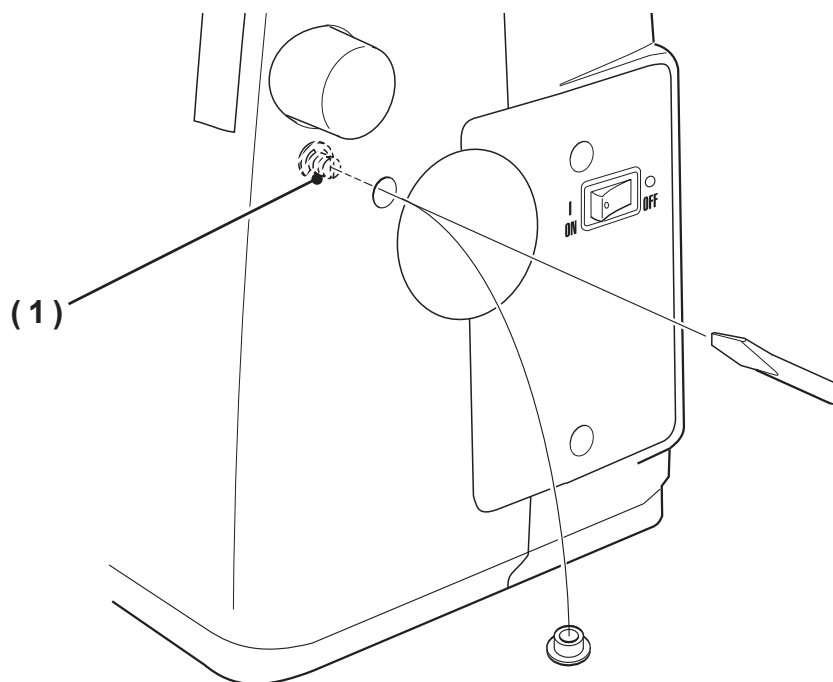
Checking:

1. Set stitch width control at the maximum position and stitch selector at zigzag stitch.
2. Set for "stretch stitching (◀)" by turning stitch length control.
3. Sew on a piece of paper and check needle holes on it.
4. Check to see if needle pierces on a same spot three times.



Adjustment:

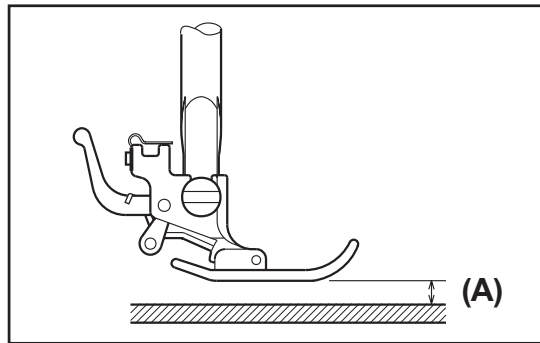
1. Remove rubber cap of hole beside stitch selector.
2. Insert screw driver through the hole and turn screw (1) in either direction to correct the condition.



2 - 14 Presser Foot Height

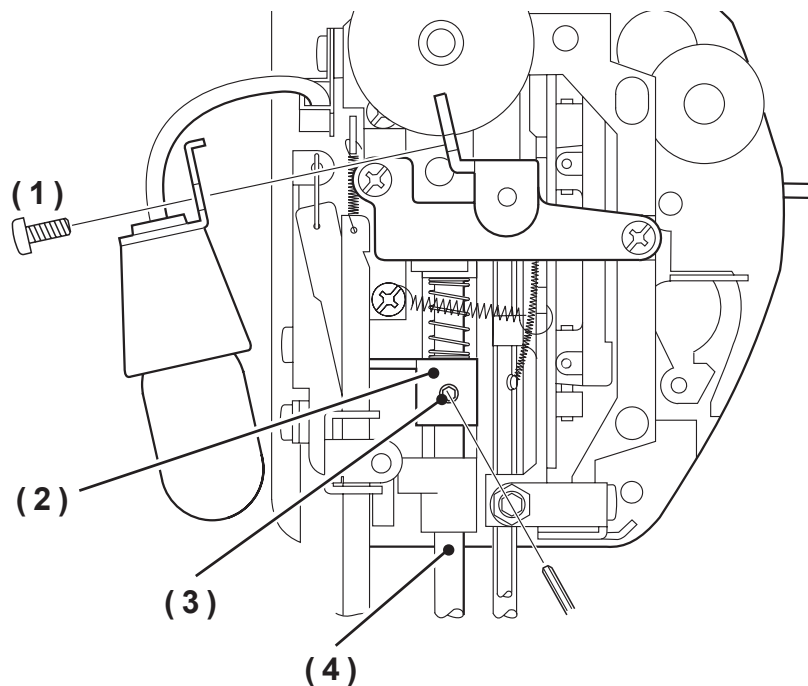
Checking:

1. Lower feed dog below the needle plate.
2. Lift up presser foot lever.
3. Check and see if clearance (A) between needle plate and presser foot is 5.5 - 6.0 mm.



Adjustment:

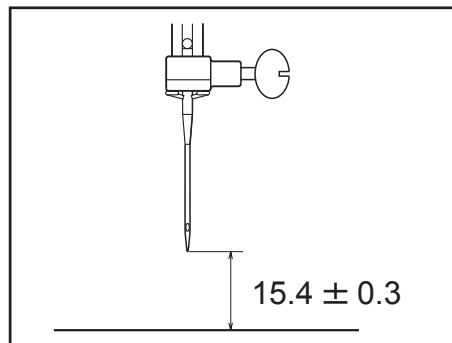
1. Remove face cover.
If access to adjustment point is difficult, remove screw (1) and lamp holder.
2. Loosen screw (3) of presser bar clamp (2) and adjust the height by vertically sliding presser bar(4).
3. Tighten screw (3) securely after adjustment keeping alignment of the foot against feed dog.



2 - 15 Needle Height

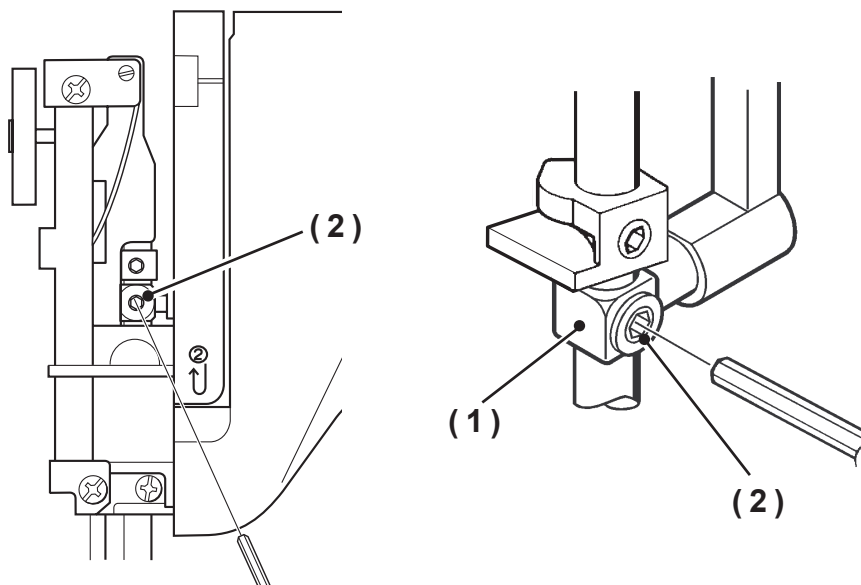
Checking:

1. Remove presser foot.
2. Set machine for straight stitch at center needle position.
3. Check to see if the distance between needle point and needle plate surface is about 15.1 - 15.7 mm.



Adjustment:

1. Remove face plate.
2. Loosen screw (2) of needle bar clamp (1).
3. Vertically sliding needle bar, correct the needle height.
4. Tighten screw (2) securely checking needle hole direction after adjustment.

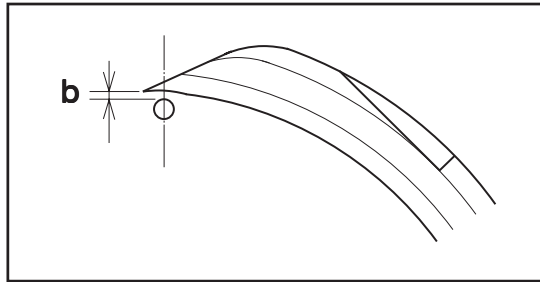
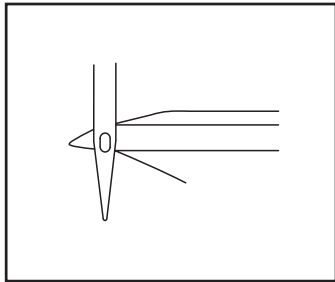


NOTE: After adjustment, follow "2 - 20 Replacement of needle hole threader lever".

2 - 16 Needle Clearance to Shuttle

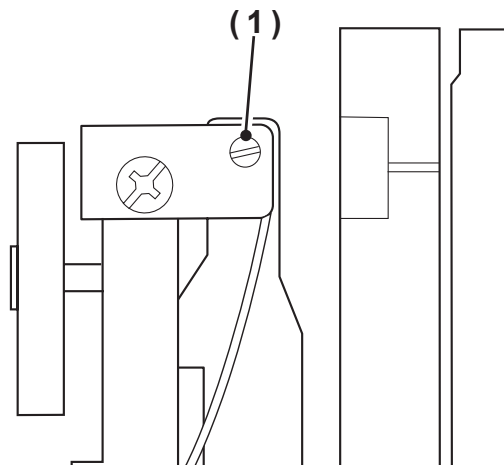
Checking:

1. Remove bobbin case and needle plate.
2. Set #14 needle.
3. Set machine for zigzag stitch at maximum.
4. Turning hand wheel until needle is moved to left side and shuttle point to the rear of needle hole.
5. Check if needle clearance to shuttle point (b) is 0 to 0.1 mm.



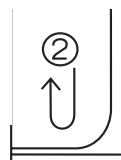
Adjustment:

1. Remove face cover.
2. Adjust by turning adjust screw (1) in either direction.



To increase clearance → Turn adjust screw (1) clockwise.

To decrease clearance → Turn adjust screw (1) anti-clockwise.



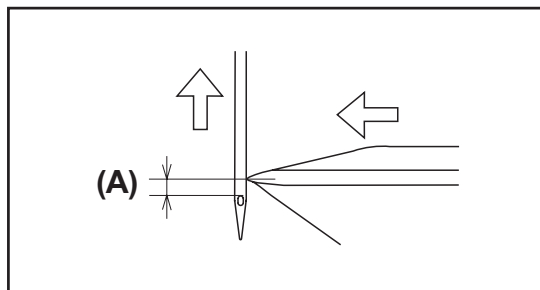
2 - 17 Needle Timing to Shuttle

NOTE: Before checking, follow Section 2 - 3 "Needle position at Zigzag Stitching (Vertical movement)", 2 - 9 "Feed Dog Timing", 2 - 15 "Needle Height".

Checking:

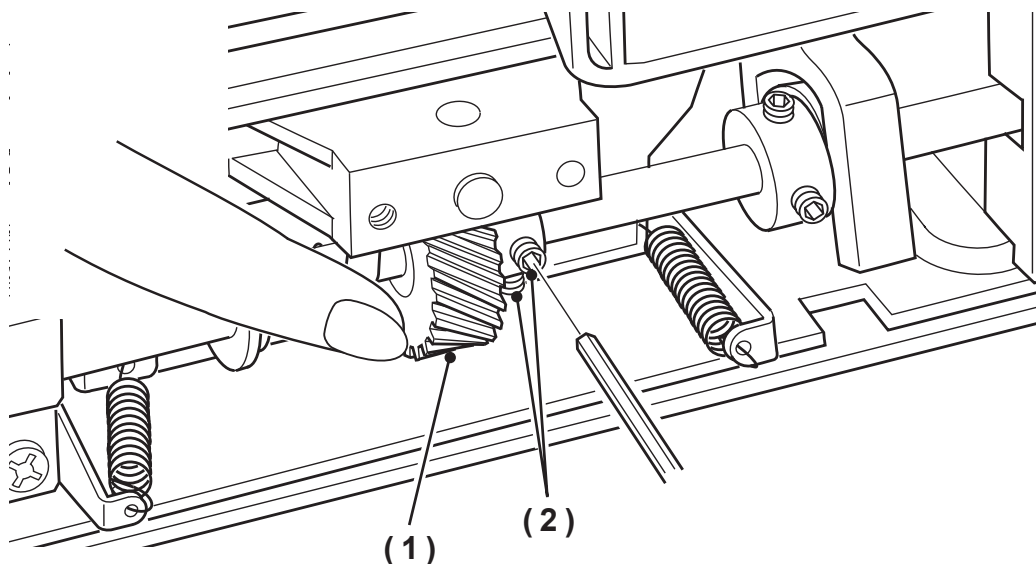
1. Remove bobbin case and needle plate.
2. Set stitch width control at the maximum and stitch selector at zigzag stitch.
3. Turning hand wheel, bring up needle from its left hand lowest point until shuttle hook point comes to align with right side of needle.

Check if clearance (A) between hook point and upper edge of needle eye is 0.7 - 1.0 mm.



Adjustment:

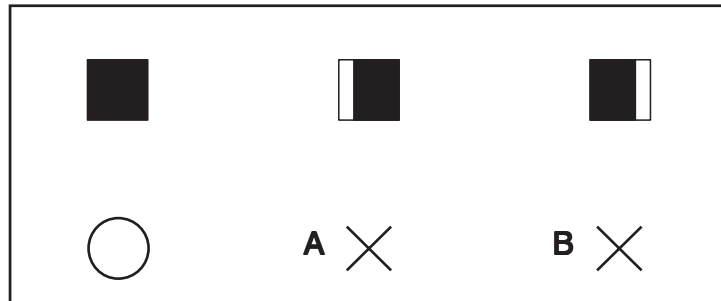
1. Remove bottom cover of free arm.
2. Touching the side of lower shaft gear (1) with finger to hold it in place, loosen two screws (2).
3. Turn lower shaft gear (1) in either direction to correct the condition.
4. After the adjustment, tighten 2 screws (2) firmly.



2 - 18 Adjustment of Stitch Selector

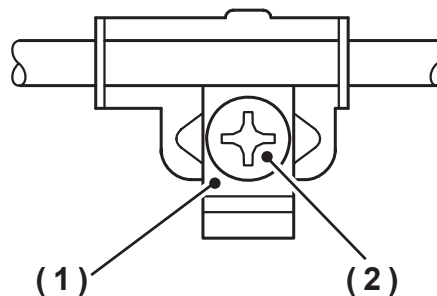
Checking:

1. Turning stitch selector, check if pointer is set in correct position of window on control panel.



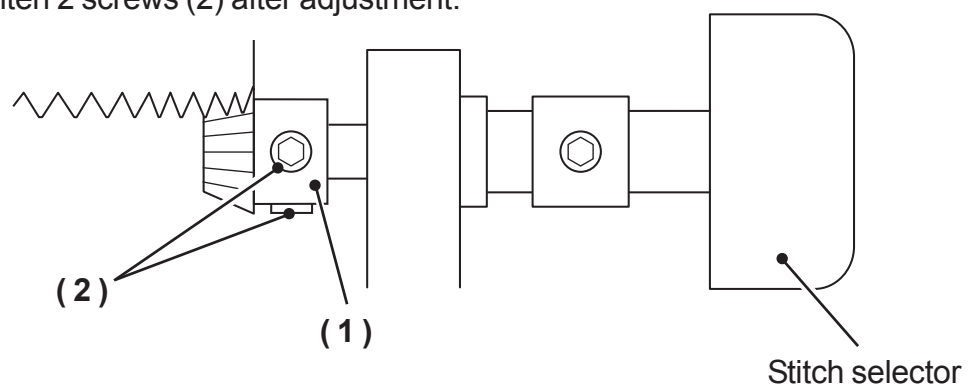
Adjustment for slight deviation:

1. Remove front cover.
2. Loosen screw (2) for pointer (1) and adjust the position.
3. Tighten screw (2) securely after adjustment.



Adjustment for large deviation:

1. Remove front cover.
2. Loosen 2 screws (1) on gear (1).
3. Insert screw driver and turn stitch selector in either direction to adjust the position while holding gear (1) in position.
3. Tighten 2 screws (2) after adjustment.

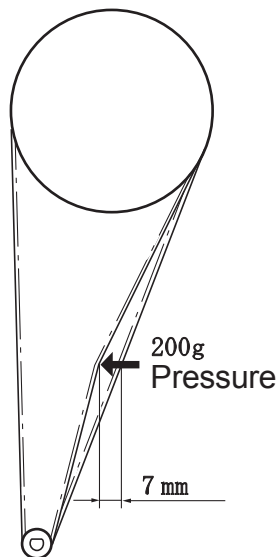


2 - 19 Belt Tension

NOTE: Belt tension should be adjusted in case of belt jumping on heavy material sewing or slow rotation.

Reference:

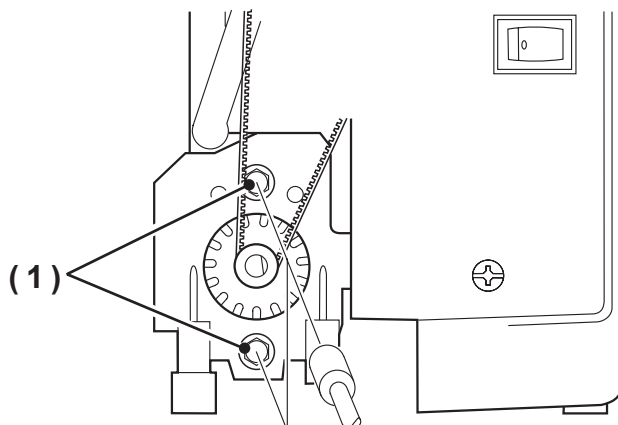
- * Belt is bent about 7mm when it is pushed by pressure of 200g between upper shaft and motor.
- * If tension is too tight, machine may not stop smoothly.
- * If tension is too loose, safety stop function (belt slippage) may not work.



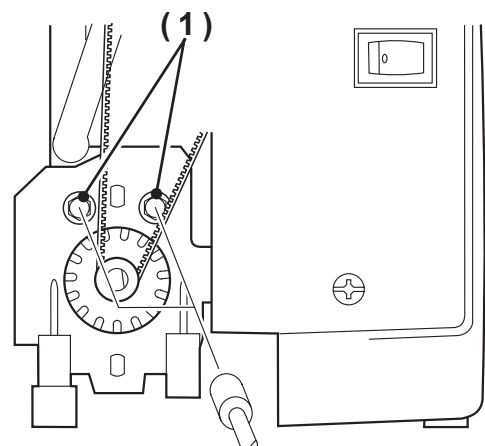
Adjustment:

1. Remove front cover.
2. Loosen two screws (1). Adjust belt tension by moving motor and tighten screws (1).

120 V



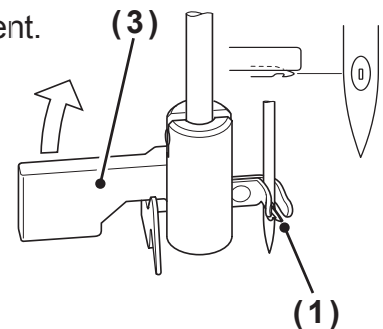
230 V



2 - 20 Hooking Fork Position of Needle Threader

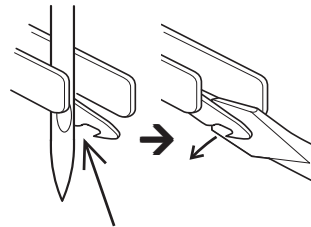
Checking:

1. Check and see if #14 needle is used and it is not bent.
2. Set machine for Straight Stitch at center needle position.
3. Raise the needle to its highest position by rotating the hand wheel towards you.
4. Lowering needle hole threader lever, check and see if hook (1) inserts into needle hole.

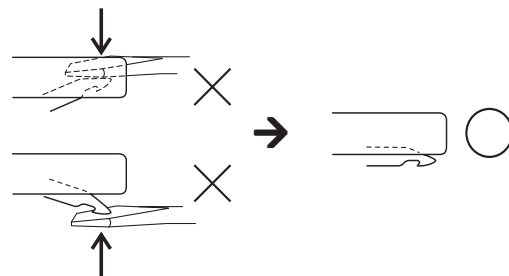


Adjustment when hook (1) is deviated horizontally or bent vertically:

Correct the condition using small screw driver as illustrated.



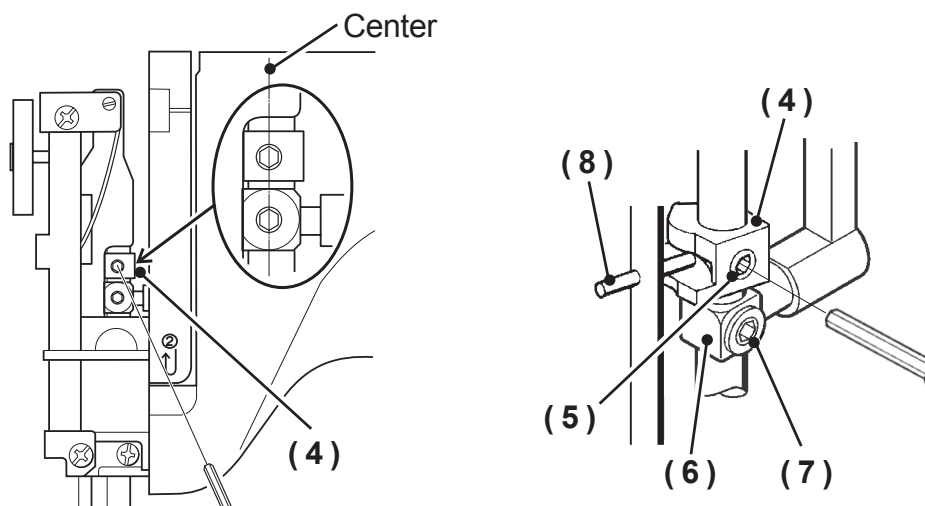
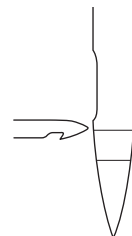
Deviated horizontally



Bent vertically

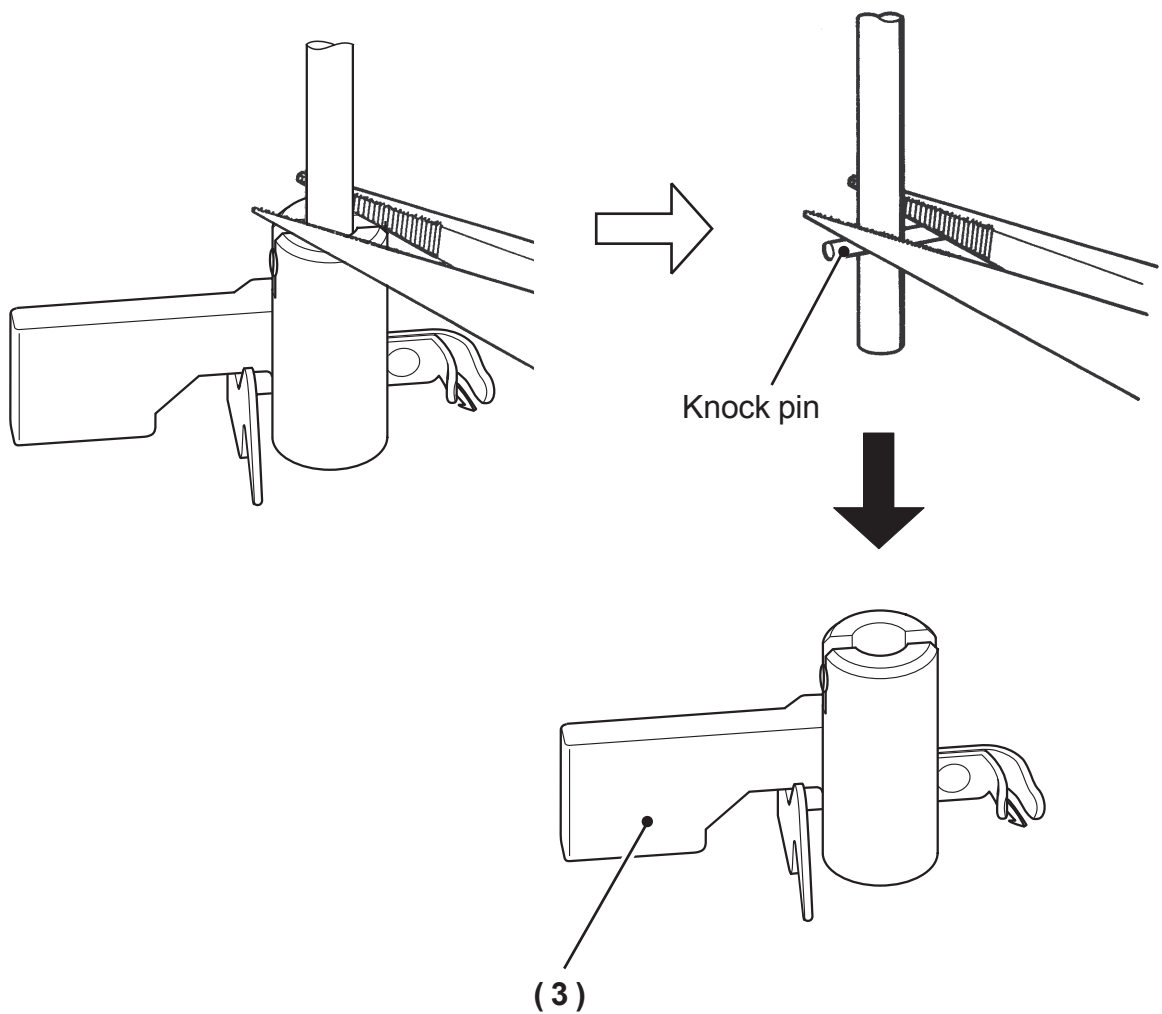
Adjustment when hook (1) is deviated vertically:

1. Remove face cover.
2. Turning hand wheel by hand, bring needle bar to its highest position.
3. Lower needle hole threader lever (3).
4. Pushing needle hole threader lever (3) away from you, insert hook (1) into needle hole, and keep it.
5. Loosen stopper screw (4).
6. Holding threader stopper (4) onto stopper pin (8), tighten stopper screw (5).
Make sure to align the screw (5) with the screw (7) on needle bar clamp (6)



Exchange of needle hole threader lever:

1. Remove presser foot.
2. Raise needle to its highest position.
3. Push needle hole threader lever down by pliers or forked driver as illustrated.
4. Remove needle hole threader lever (3).

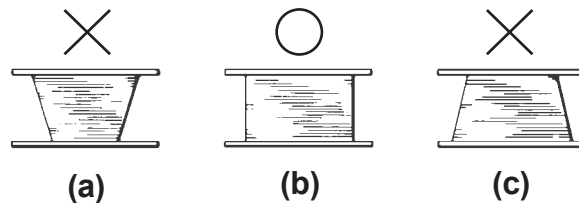


2 - 21 Bobbin Winder

1) Winding balance

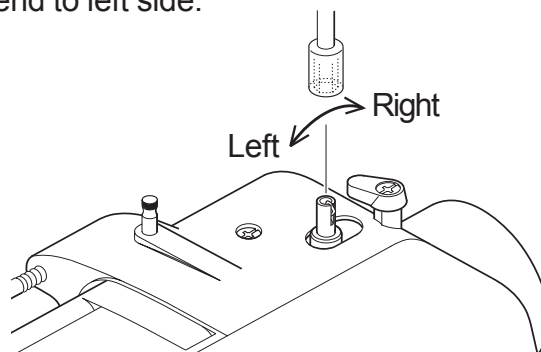
Checking:

1. Wind thread on the bobbin.
2. Check if the thread is wound evenly.



Adjustment:

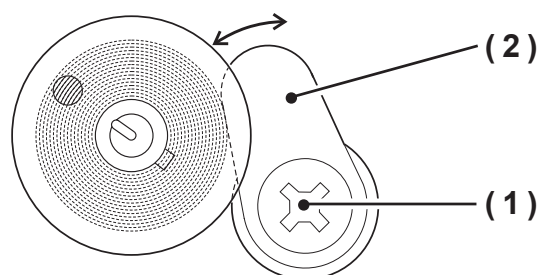
1. Insert box driver (hexagonal box driver, etc.) into the bobbin winder shaft and bend it.
In case of (a) → Bend to right side.
In case of (c) → Bend to left side.



2) Winding volume

Adjustment:

1. Loosen screw (1) and adjust the bobbin winder stopper (2) (↔).
(The best volume of winding is 80% at maximum.)



2 - 22 Buttonhole Changer

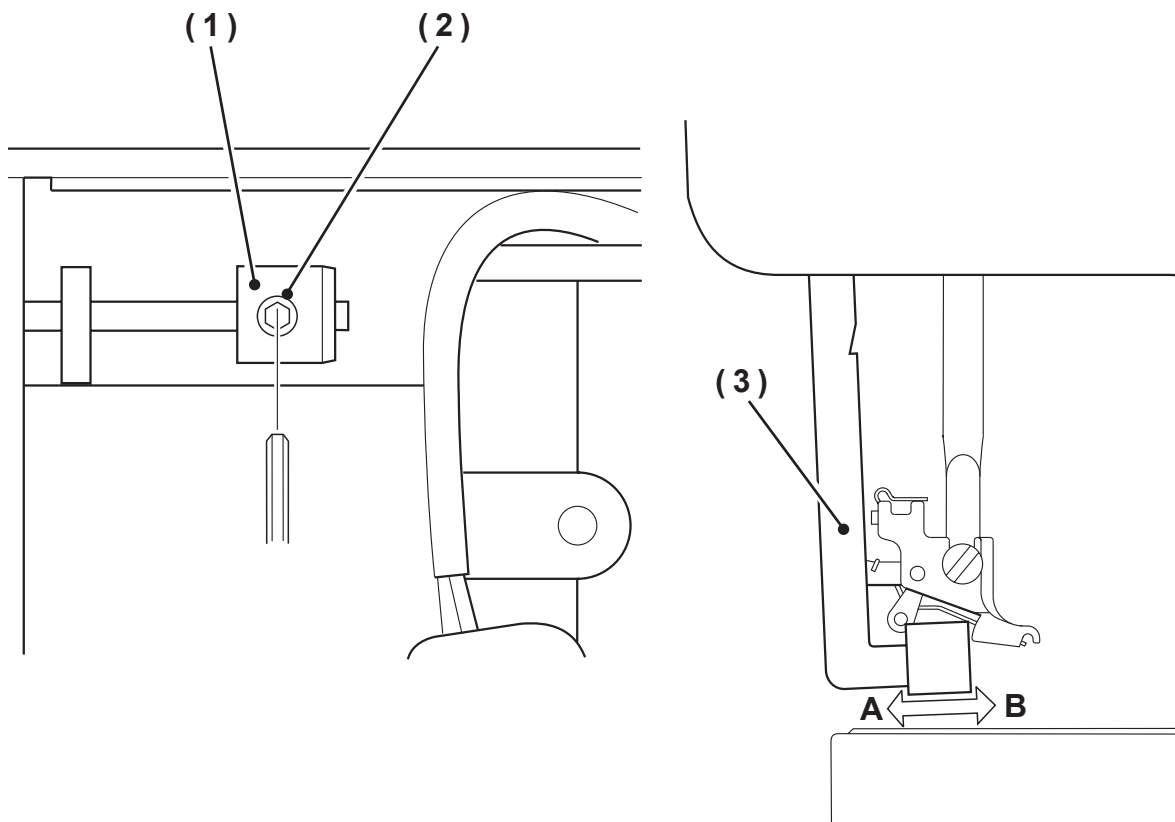
NOTE: This adjustment is only for model with one-step buttonholing system.

Checking:

1. Check to See if there is no trouble in changing direction from backward to forward and vice versa while sewing buttonhole.

Adjustment:

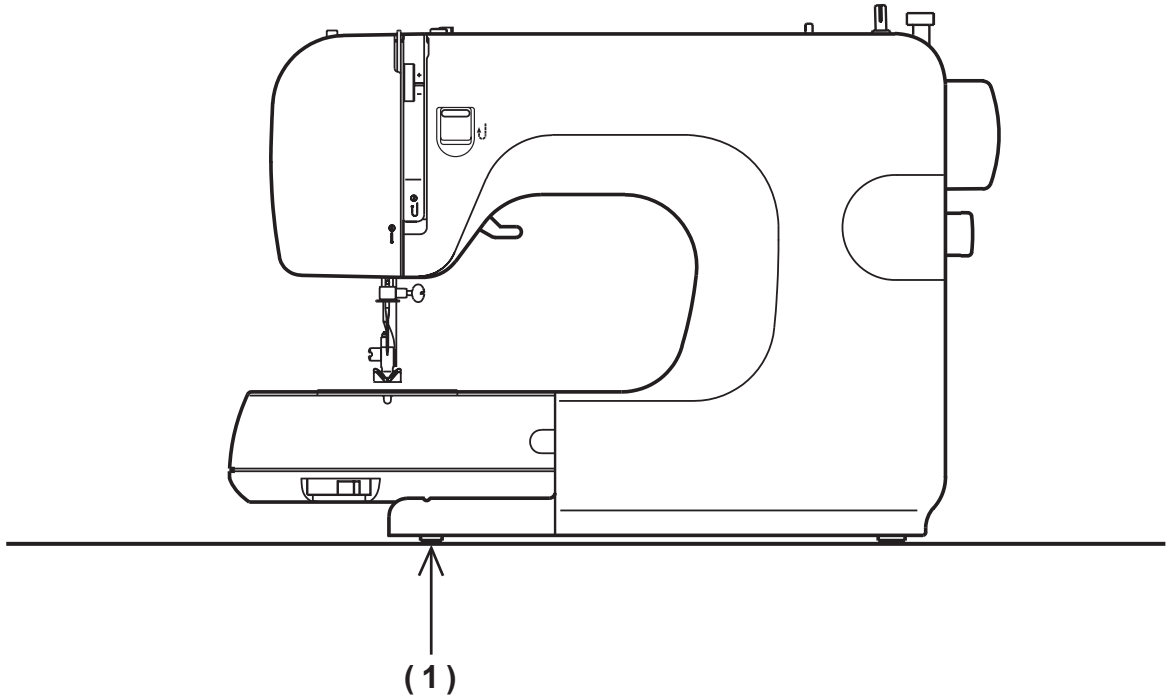
1. Remove spool pin stand.
2. Loosen screw (2) on buttonhole change lever (1).
3. Hold lever (1) in the same position and adjust buttonhole changer by moving buttonhole lever (3) in either direction, A or B.
Changeover timing is too early → Move lever (3) toward direction A.
Sewing forward is not completed → Move lever (3) toward direction B.
4. After the adjustment, tighten screw (2) firmly.



2 - 23 Rubber Foot Height

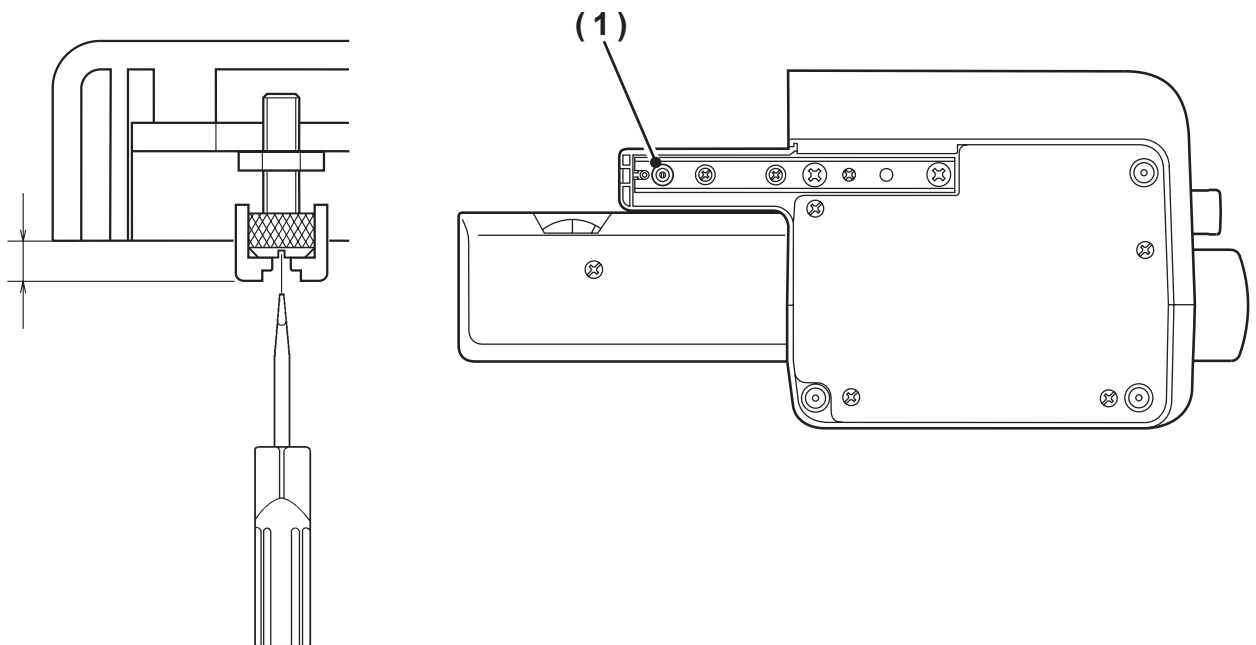
Checking:

1. Put the machine on the flat table.
2. Check the balance of the machine.



Adjustment:

Insert the driver into the hole (1) and adjust by turning it.



P.No. 74793

* Use screw driver P#.74793 included in the accessories.

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