

JUKI

Synchronizer
SY-1

Part # Number
GSY01010A0
or
400-26920

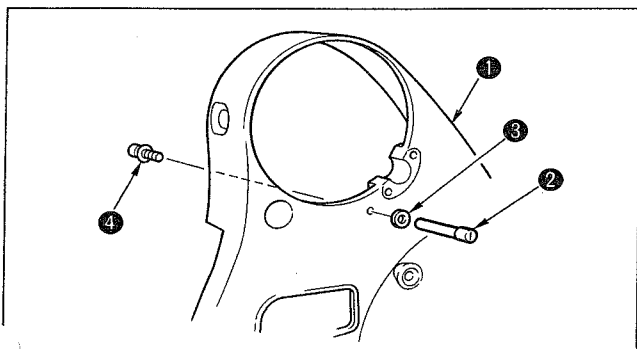
INSTRUCTION MANUAL

Congratulations on your purchase of a JUKI synchronizer. To get the most out of many functions of the synchronizer, it is necessary to use the unit correctly, so please read this Instruction Manual carefully before using it. We hope you will enjoy using it for a long time. It is also necessary to keep this Instruction Manual taking care not to lose it.

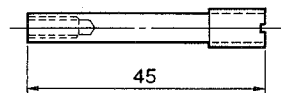
(Caution) To install/remove the synchronizer, confirm first that the power to the sewing machine controller has been turned OFF.

1. Temporarily fixing the synchronizer

1. For a 1-needle lockstitch machine

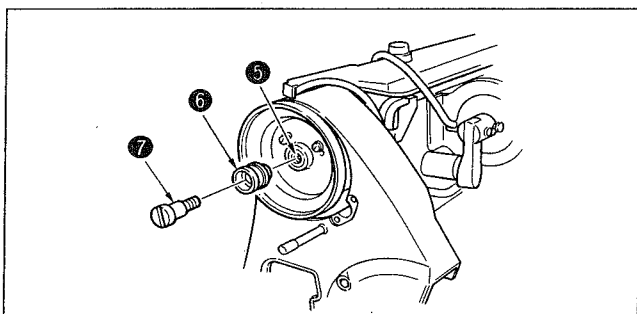


1) Securely fix supporting shaft D ② and plain washer ③ to belt cover A ① using screw ④.

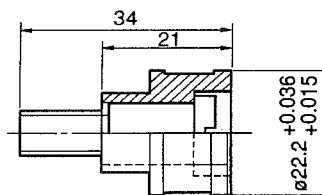


Use the supporting shaft D of the illustrated type supplied with the unit.

Supporting shaft D ② : Part No. GSY010520A0
Plain washer ③ : Part No. WP0450801SD
Attaching screw ④ : Part No. SL4041295SE



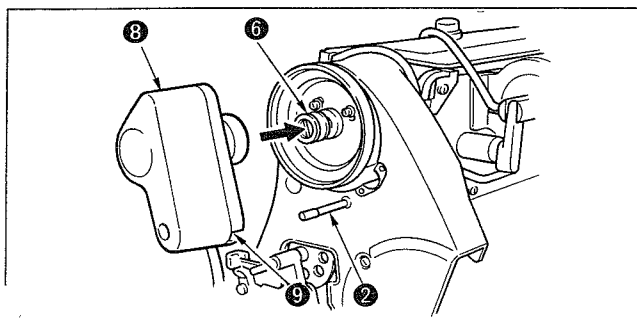
2) Securely fix adapter ⑥ in the tapped hole ⑤ in the main shaft of sewing machine using screw ⑦.



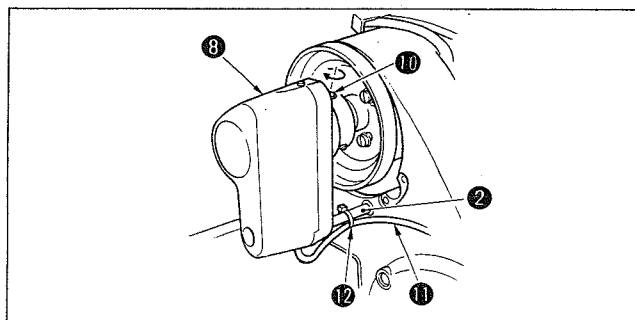
SM 5/16 thread 24

Adapter ⑥ : Part No. GSY01051000

Screw ⑦ : Part No. SD1111351SP



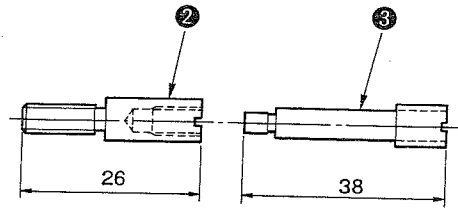
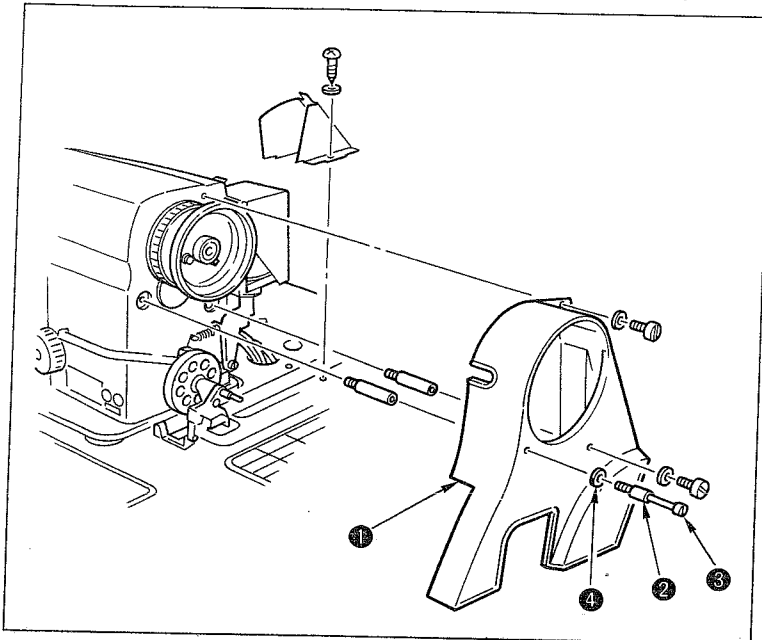
3) Insert supporting shaft D ② in slit ⑨ on the synchronizer stopper. Then, fit synchronizer ⑧ to adapter ⑥ in the direction of the arrow.



4) Tighten setscrew ⑩ in synchronizer ⑧ by turning it in the direction of the arrow.

5) Fix cord ⑪ of the synchronizer on supporting shaft ② using cord clamp ⑫ supplied with the unit.

2. For a 2-needle lockstitch machine (LH-3100 Series)



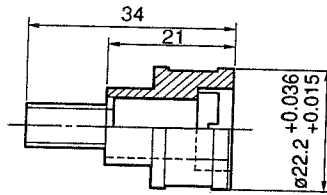
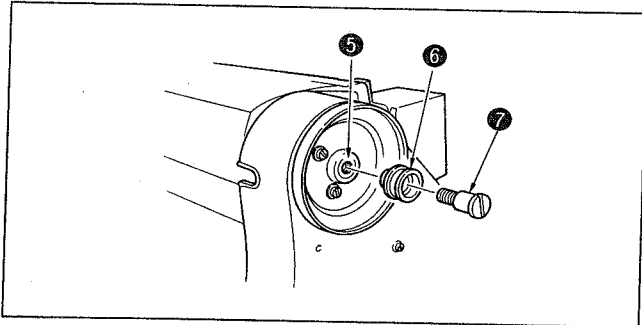
Use in combination supporting shaft LH ② and supporting shaft LZ ③ supplied with the unit.

Supporting shaft LH ② : Part No. GSY01053000

Supporting shaft LZ ③ : Part No. GSY010540A0

Plain washer ④ : Part No. WP0450801SD

- 1) Combine supporting shaft LH ② and supporting shaft LZ ③ . Then, screw in them belt cover A ① while placing plain washer ④ between the shafts and cover.

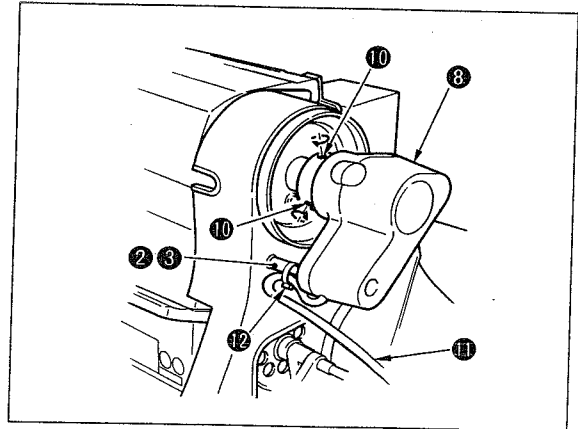
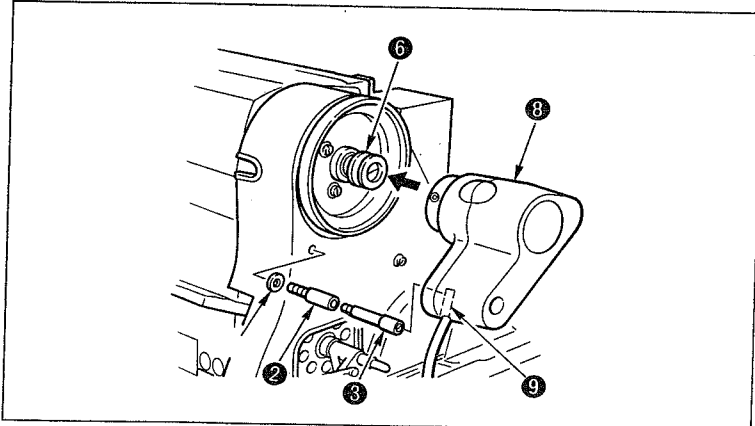


SM 5/16 thread 24

Adapter ⑥ : Part No. GSY01051000

Screw ⑦ : Part No. SD1111351SP

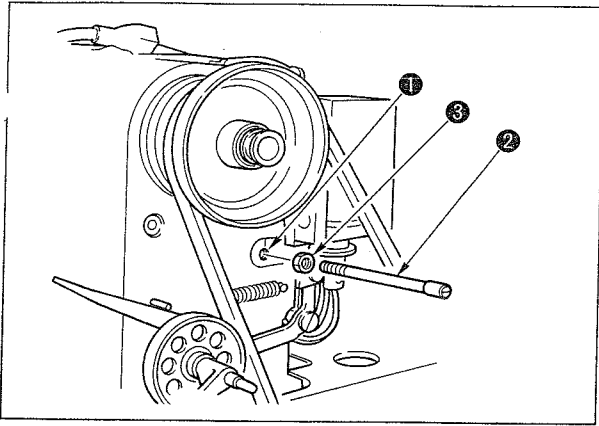
- 2) Securely fix adapter ⑥ in the tapped hole ⑤ in the main shaft of sewing machine using screw ⑦ .



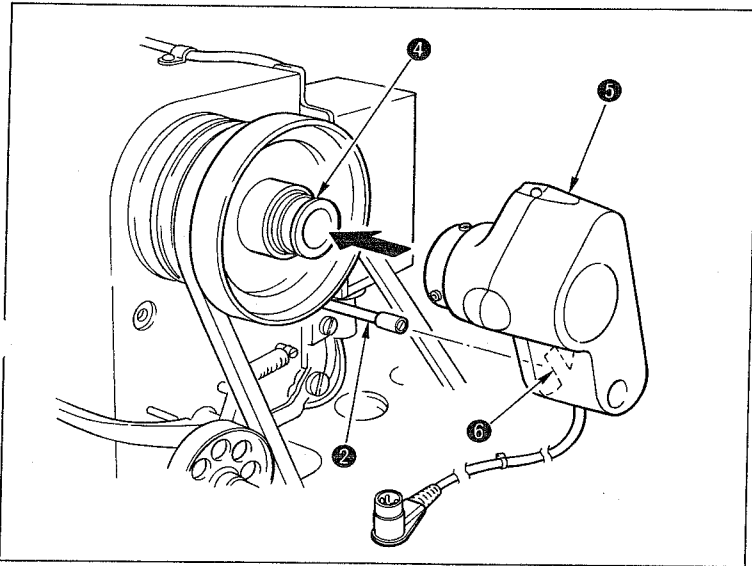
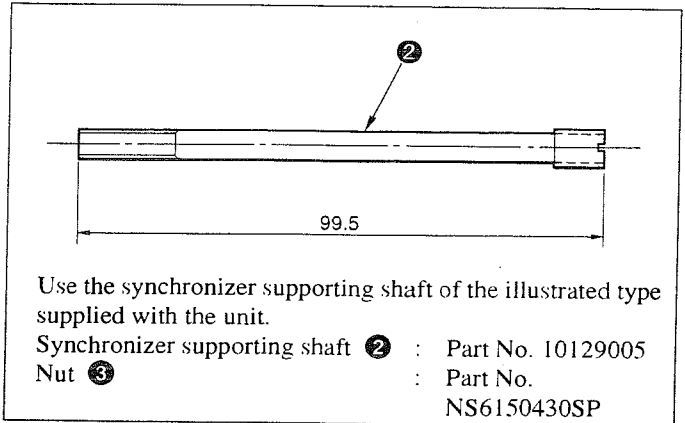
- 3) Insert supporting shafts ② and ③ in slit ⑨ on the synchronizer stopper. Then, fit synchronizer ⑧ to adapter ⑥ in the direction of the arrow.

- 4) Tighten setscrew ⑩ in synchronizer ⑧ by turning it in the direction of the arrow.
- 5) Fix cord ⑪ of the synchronizer on supporting shafts ② and ③ using cord clamp ⑫ supplied with the unit.

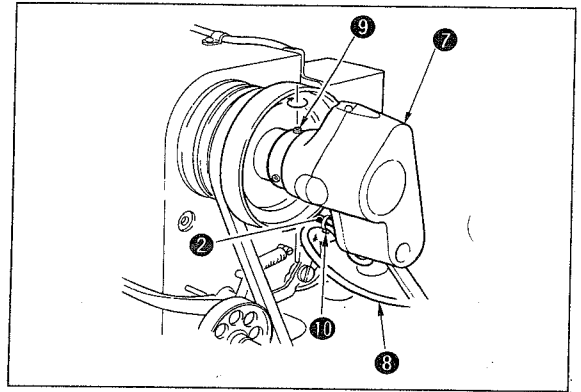
3. For 2-needle lockstitch machine (LH-1152 type)



- 1) Screw in synchronizer supporting shaft ② in tapped hole ① in the sewing machine head and fix the supporting shaft with nut ③.

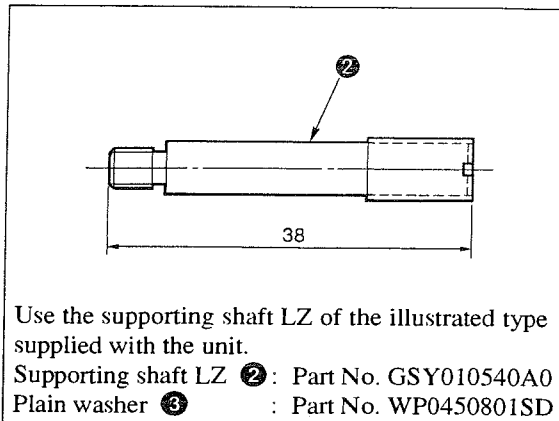
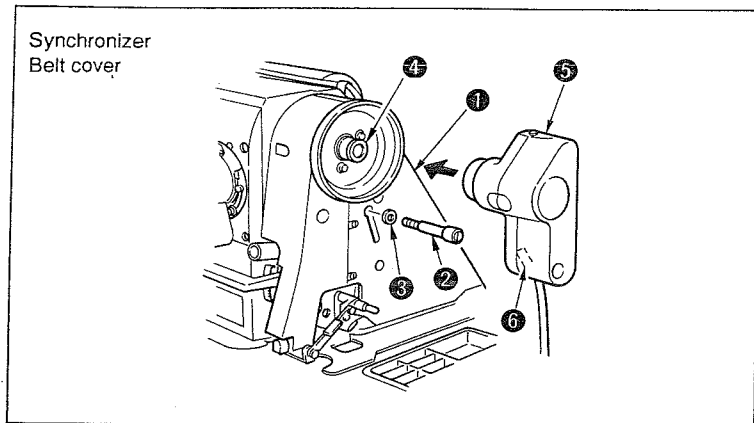


- 3) Insert supporting shaft ② into slit ⑥ on the stopper of synchronizer. Then, fit synchronizer ⑦ in boss ④ of the sewing machine pulley in the direction of the arrow. (At this time, the adapter and screw supplied with the unit are not used.)

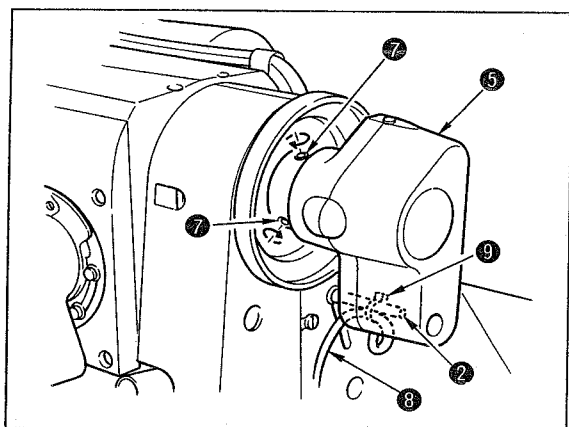


- 4) Tighten setscrew ⑨ in synchronizer ⑦ by turning it in the direction of the arrow.
- 5) Fix cord ⑧ of the synchronizer on supporting shaft ② using cord clamp ⑩ supplied with the unit.

4. For zigzag stitching machine (LZ-2280 Series)



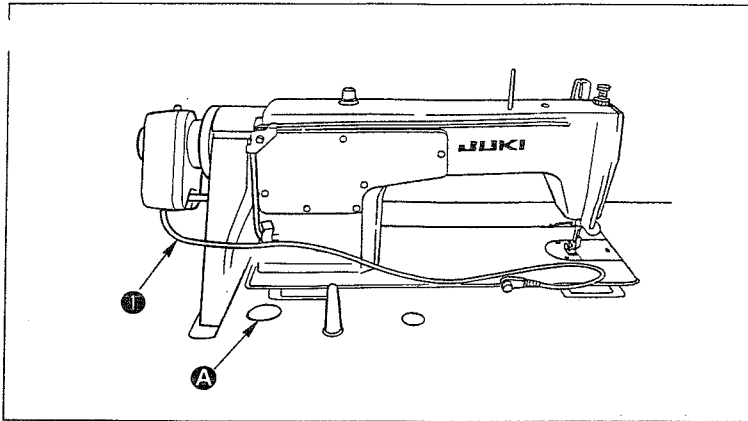
- 1) Fit supporting shaft LZ ② in the slot on belt cover B ① while placing plain washer ③ between the supporting shaft and the cover and screw it in the slot until it is securely fixed.
- 2) Aligning the top end of supporting shaft LZ ② with slit ⑥ on the synchronizer, fit synchronizer ⑤ into boss ④ on the sewing machine pulley in the direction of the arrow. (At this time, the adapter and screw supplied with the unit are not used.)



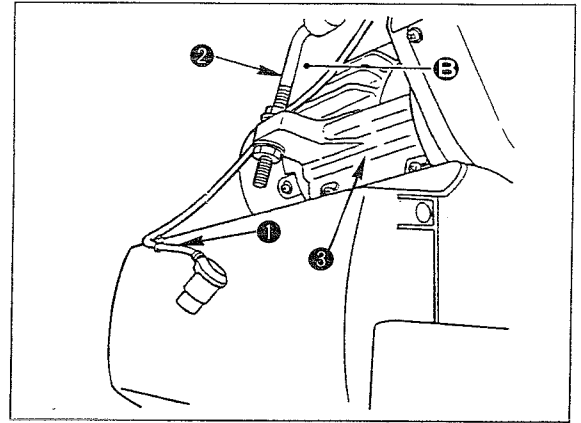
- 3) Tighten setscrew ⑦ in synchronizer ⑤ in the direction of the arrow.
- 4) Fix cord ⑧ of the synchronizer on supporting shaft ② using cord clamp ⑨ supplied with the unit.

2. Connecting the cords

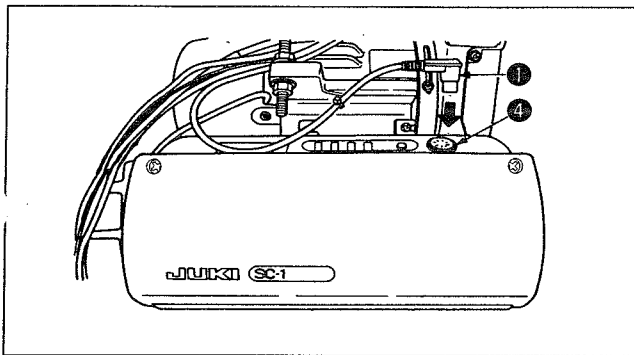
1. For the sewing machine controller (SC-1 Series) for AC servo motor



1) Pass cord ① of the synchronizer through hole ① in the table to route it under the table.

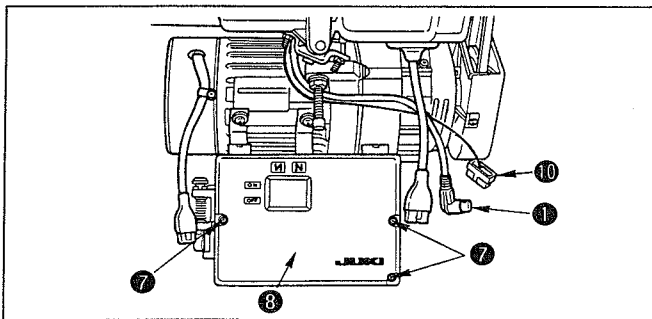


2) Pass cord ① through portion ① located between motor belt tension adjust bolt ② and motor ③ taking care not to allow the cord to come in contact with the belt.

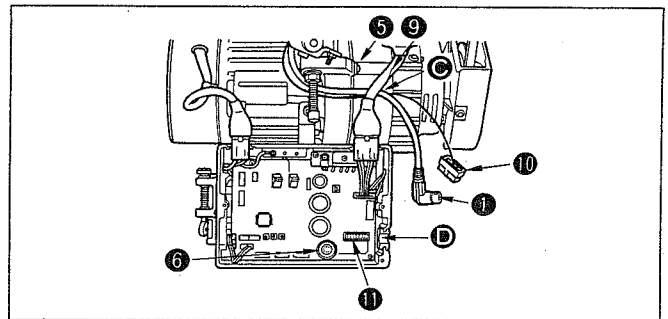


3) Connect the plug of synchronizer cord ① to connector ④ on the SC-1.

2. For the sewing machine controller (EC-5A, EC-10A) for electronic-stop motor



- 1) Pass cord ① and FG cord ⑩ of the synchronizer through hole ① in the table to route them under the table.
- 2) Remove screw ⑦ and open cover ⑧ of the PSC box.

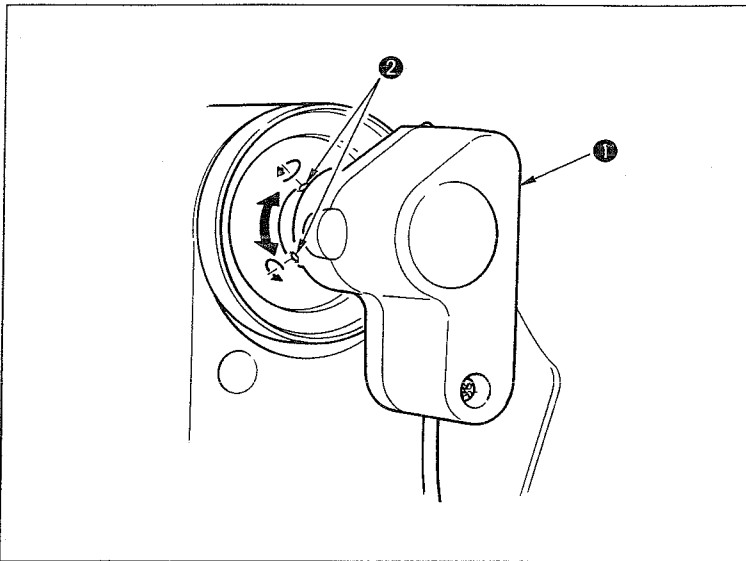


- 3) Pass cords ① and ⑩ through section ① located between 4P cord ⑨ of the motor and motor ⑤.
- 4) Insert the plug of cord ① of the synchronizer into connector ⑥. Insert FG cord ⑩ to the connector ⑪.
- 5) Pass cord ① through rubber ① with the PSC box and close the cover ⑧ of the PSC box.

(Caution) Close the cover of the PSC box taking care not to allow the cord to be caught between the cover and the box.

3. Positioning the synchronizer

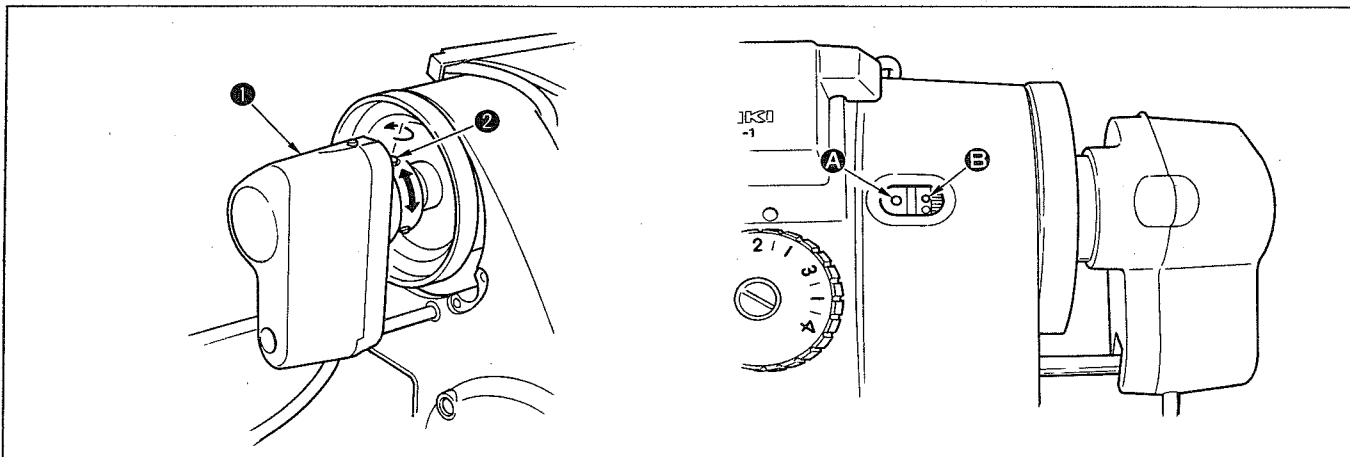
1. When using the synchronizer on a sewing machine with a needle positioner



- 1) Turn ON the power to the machine, and the sewing machine pulley will rotate. Loosen setscrew ② in the synchronizer ① and adjust the synchronizer by turning the joint so that the sewing machine stops with its needle up.
- 2) Check the needle-down stop position of the sewing machine. If re-adjustment is necessary, finely adjust the synchronizer.

(Caution) The relation between the needle-up stop position and the needle-down stop position changes with the type of sewing machine used. Adjust it properly for your sewing machine.

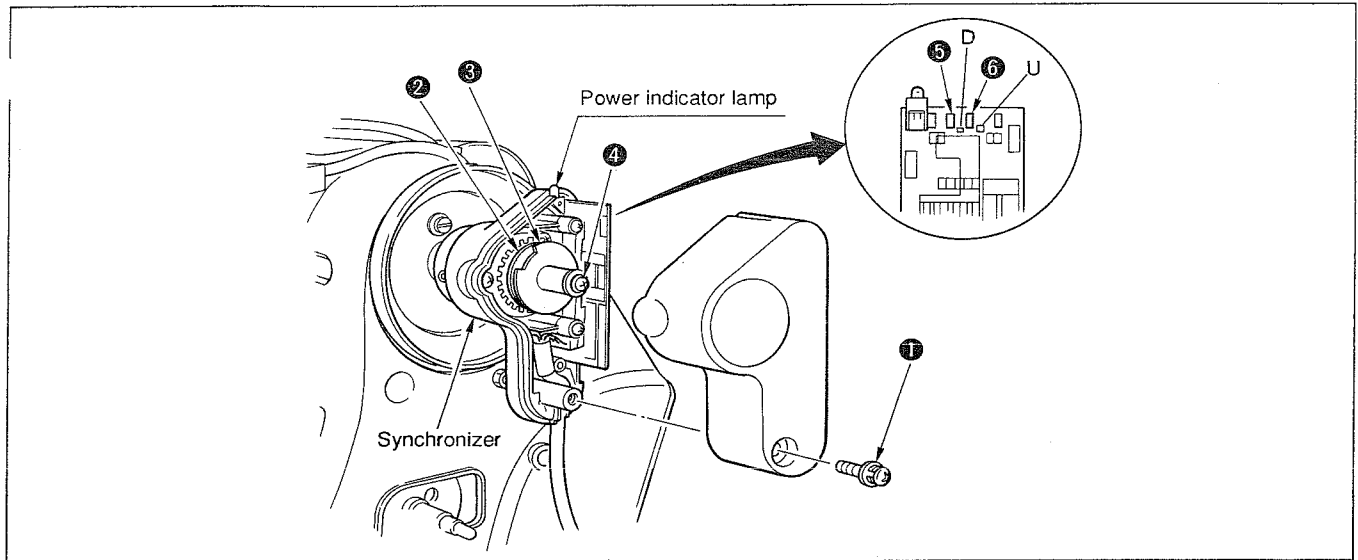
2. When using the synchronizer on a sewing machine with a thread trimmer



- 1) Turn ON the power to the machine, and the sewing machine pulley will rotate. Loosen setscrew ② in the synchronizer ① and adjust the synchronizer ① by turning the joint in the direction of the arrow so that the sewing machine stops with its needle up.
- 2) The standard needle-up stop position is provided in the case where red marker dot A engraved on the machine arm meets white marker dot B engraved on the sewing machine pulley when the needle stops after thread trimming. Make the machine perform thread trimming while actually sewing a material and adjust the needle-up stop position using setscrew ② of the synchronizer ①. (Adjustment can be performed by moving the synchronizer in the direction of the arrow.) For the needle-up stop position after thread trimming, refer to the Instruction Manual for your sewing machine since the location of the marker dots differ with the type of sewing machine.
- 3) Confirm the lowest position of the needle. If it needs further adjustment, finely adjust the synchronizer ①.

(Caution) The relation between the needle-up stop position and the needle-down stop position changes with the type of sewing machine used. Adjust it properly for your sewing machine.

4. Finely adjusting the synchronizer

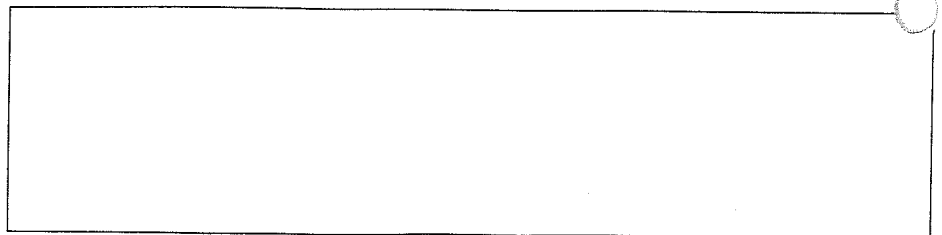


- 1) To adjust the stop position of the needle, loosen screw ① and remove the cover. Then, loosen screw ④ located at the top of the shaft by a half revolution using a screwdriver.
Perform the adjustment while lightly turning detecting plates ② by hand.
- 2) When detecting the stop position of the needle, the LED lamp mounted on the circuit board which corresponds to each detection plate turns ON.
Detector plate ② located near the sewing machine pulley detects the lowest position of the needle (when the front part of the pedal is depressed and it is returned to the neutral position, the needle stops at this position).
Detector plate ③ located away from the pulley detects the highest position of the needle (when the back part of the pedal is depressed, the needle stops at this position).
⑤ is the LED lamp (symbol D) for the needle-down position detection and ⑥ is the LED lamp (symbol U) for the needle-up position detection.
- 3) During the fine adjustment procedure, adjust only the needle-down position detector while keeping the needle-up position detector held at the correct position.
- 4) Firmly tighten screw ④ in the shaft so that it will never loosen.
**(Caution) Do not operate the sewing machine with screw ④ loosened.
Only loosen the screw and never remove it.**
- 5) Confirm the highest and lowest positions of the needle by operating the pedal. (When you carry out the aforementioned confirmation at a well-lighted place such as the one near a window, put the cover over.)
- 6) After the adjustment, be sure to attach the cover to the synchronizer.

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