

**JUKI**

**Pneumatic auto-lifter**

**TU-273/AK-72A, B**

**TNU-243/AK-72A, B**

**TSH-411/AK-72A, B**

**TSN-421/AK-72A, B**

**TSC-441/AK-72A, B**

**TSU-471/AK-72A, B**

# **INSTRUCTION MANUAL**

**No.01**

**29053600**



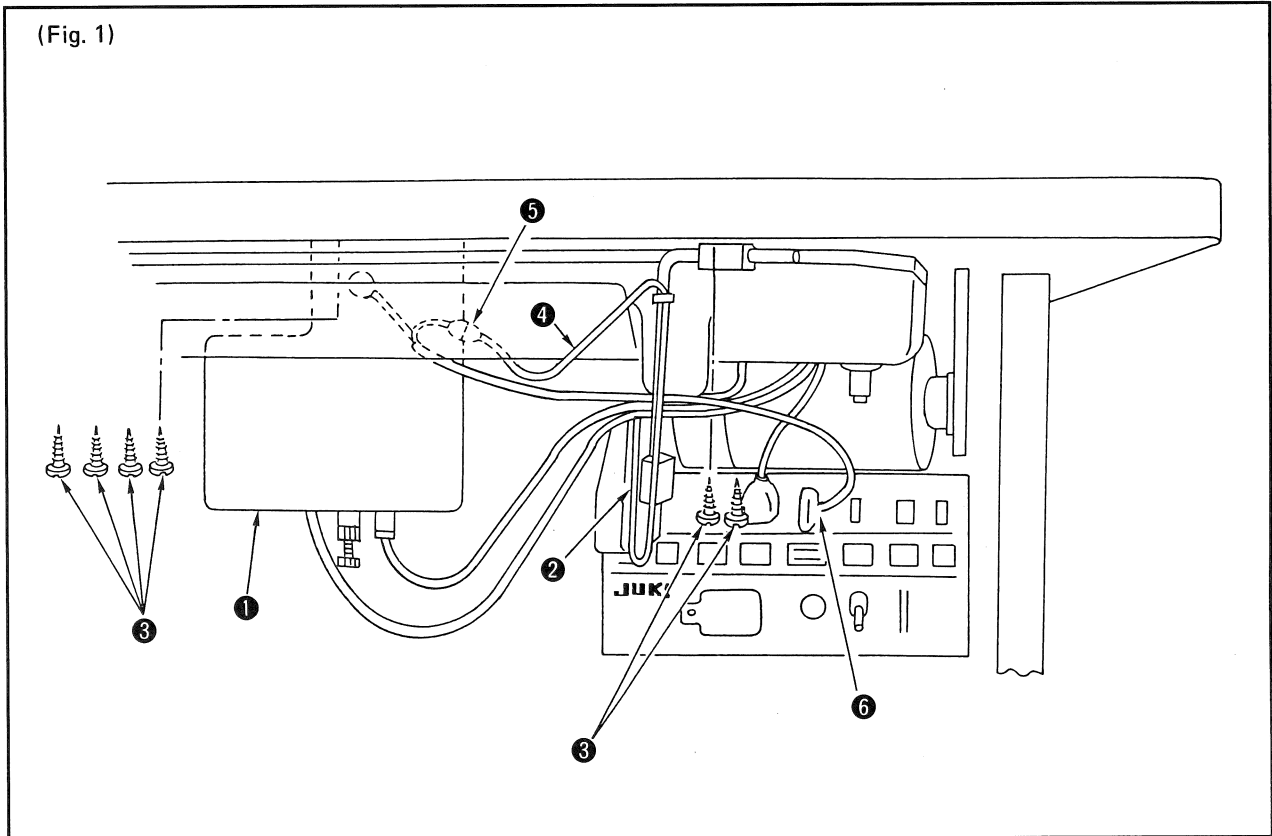
Congratulations on your purchase of the JUKI AK-72.

The AK-72 is an air-driven automatic presser lifter. The A type is operated by using a knee switch. The B type is operated by using a double-reverse-step type pedal.

The AK-72 is exclusively designed to be connected to and operated with the K7H (AC servo-mighty stop motor). To get the most out of the many functions of the AK-72, it is necessary to use the device correctly, so, please read this Instruction Manual carefully before using it. We hope you will enjoy its use for a long time. Do not lose this Instruction Manual.

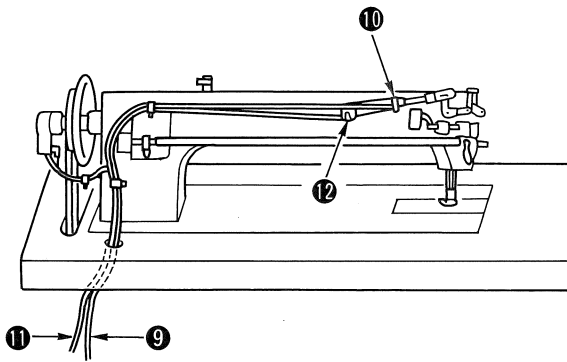
## 1. ASSEMBLING PROCEDURE

\* The (AK-72B) auto-lifter is not provided with a knee switch, so no attachment to the auto-lifter is necessary.



- 1) After completing the set-up of your sewing machine, install the solenoid valve mounting plate ① and the knee switch (asm.) ② on the bottom face of the table with the wooden screws ③ supplied with the sewing machine.
- 2) Connect the cable ④ coming from the knee switch (asm.) ② to the speed controller connector ⑤. Connect the 4-pin connector ⑥ to the auto-lifter connector located in the PSC box.

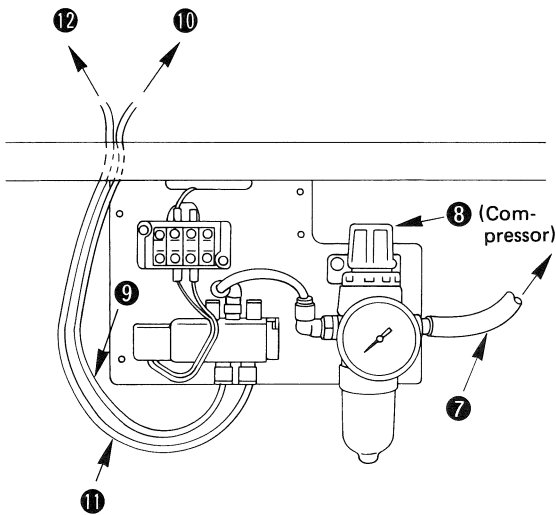
(Fig. 2)



- 3) Connect the air hose 7 to the regulator 8 . (Fig. 3)
- 4) Connect the air hose 9 to quick-coupling joint 10 on the upper section of the air cylinder. Connect the air hose 11 to the quick-coupling joint 12 on the lower section of the air cylinder. (Fig. 2, Fig. 3)

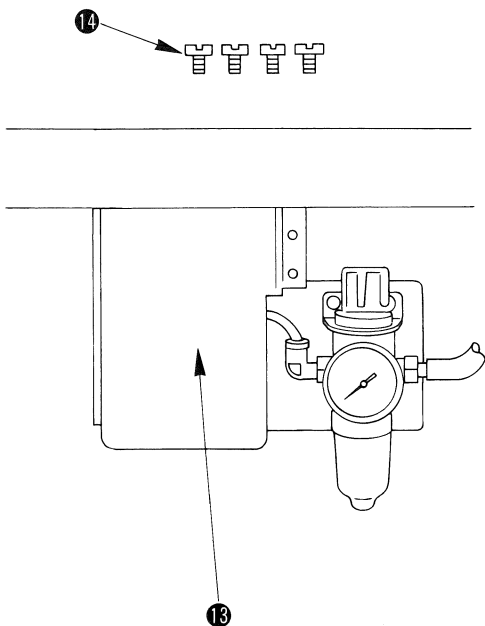
**(Caution)** During the aforementioned connecting procedure, do not bend the air hose or allow air to leak from it.

(Fig. 3)



- 5) Upon completion of the piping, set the compressed air pressure between 5 to 5 kgf/cm<sup>2</sup> using regulator 8 . (Fig. 3)

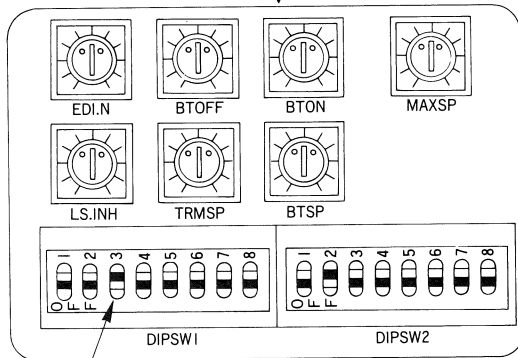
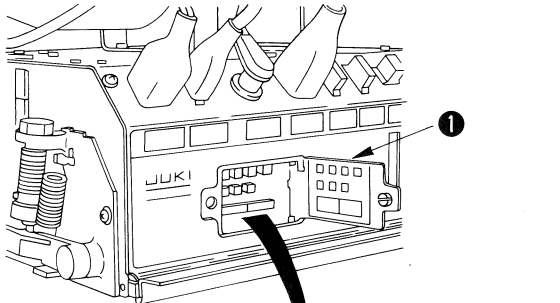
(Fig. 4)



- 6) After the air pressure has been properly adjusted, attach cover 13 to the solenoid valve mounting plate in place with four screws 14 . (Fig. 4)

## 2. CHANGEOVER FOR THE SETTING OF THE SWITCH IN THE PSC BOX

(Fig. 5)

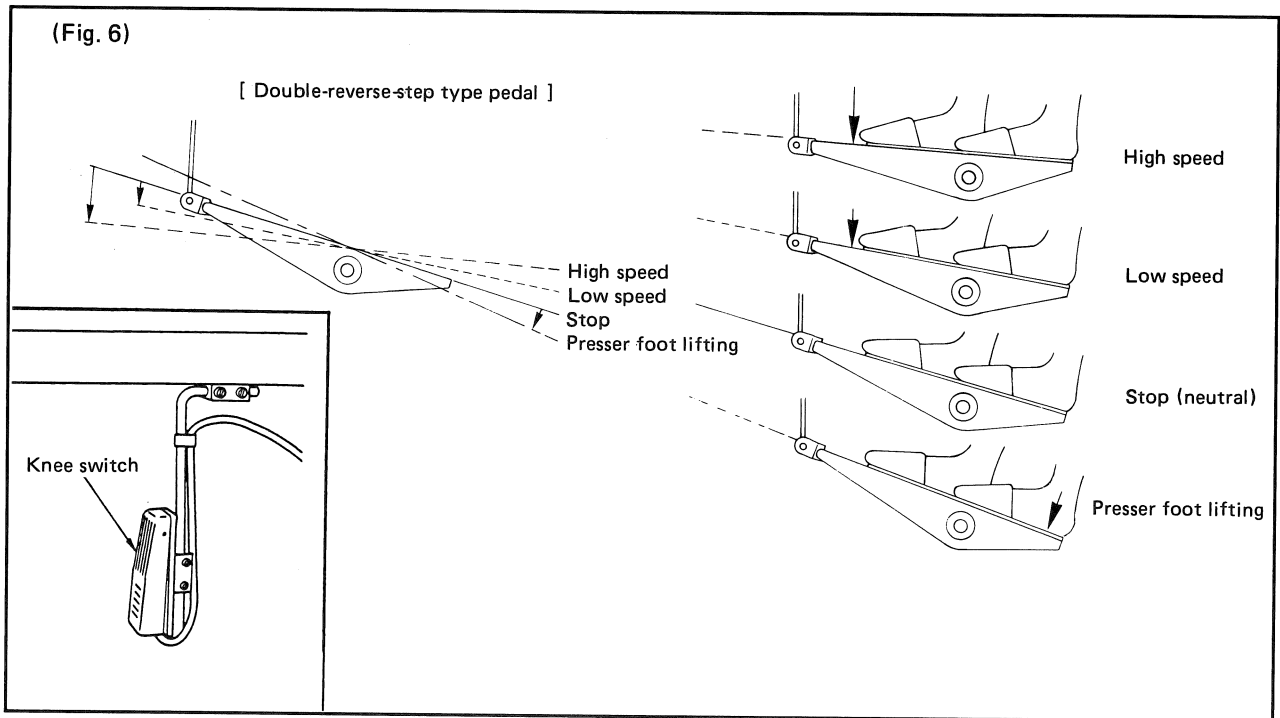


**In the case where the auto-lifter is used:**

Open the cover ① of the PSC box, and set the DIP switch ② (No. 3 of the DIPSW1) to its upper position (ON position).

- (Caution)**
1. Be sure to changeover the setting of the switch in the PSC box with the power switch in the OFF position.
  2. While operating your machine, do not changeover the setting of the other switches.

### 3. OPERATION PROCEDURE



When lightly depressing the front part of the pedal, the presser foot will come down. Further depressing the front part of the pedal will allow sewing of the material.

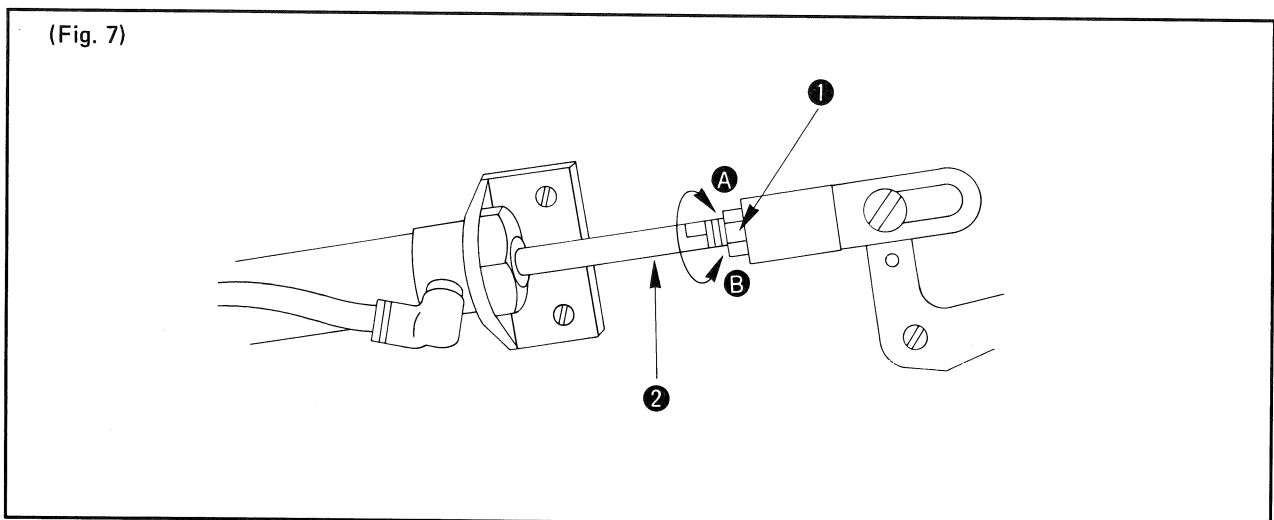
If the wrong material has been placed on the machine at the start of sewing and you wish to make the presser foot go up, press the knee switch (for the AK-72A) or lightly depress the back part of the pedal (for the AK-72B). This will cause the presser foot to go up.

Likewise, if you wish to lift the presser foot during sewing, also press the knee switch (for the AK-72A) or lightly depress the back part of the pedal (for the AK-72B). Note that the presser foot will not go up, if the front part of the pedal is kept depressed. In this case, release the pedal to its neutral position, then press the knee switch.

**(Caution)** 1. The presser foot lifting function by use of the pedal is only provided for the PSC box of the machines equipped with the double-reverse-step type pedal.

2. Regardless of the movement of knee switch, the presser foot comes down whenever you depress the pedal.

### 4. ADJUSTMENT PROCEDURE

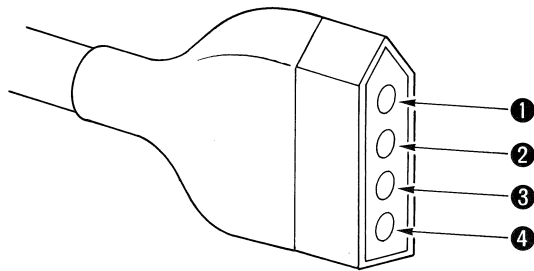


Loosen adjustment nut ①, and turn cylinder rod ② until the presser foot lifts to a height of 20 mm while the cylinder is fully compressed.

Turn the cylinder rod in direction A to decrease the lifting amount of the presser foot, and in direction B to increase it.

## 5. CONNECTING THE 4-PIN CONNECTOR

Fig. 8



No.	Wiring
①	Blank
②	Blank
③	Solenoid valve $\ominus$ (black cable)
④	Solenoid valve $\oplus$ (white cable)

Fig. 8 illustrates the wiring of the 4-pin connector ( ⑥ , Fig. 1 on page 1) of the auto-lifter. Refer to the Instruction Manual for the K7H motor to check the connectors on the control box of the motor. Then properly connect the connectors.

# JUKI

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To order or for further information, please contact :

Please do not hesitate to contact our distributors or agents in your area for further informations when necessary.  
\* The description covered in this instruction manual is subject to change for improvement of the commodity without notice.  
\* This instruction manual is edited and printed in accordance with the product specifications as of May, 1991.