

***ENGLISH***

## **INSTALLATION MANUAL**



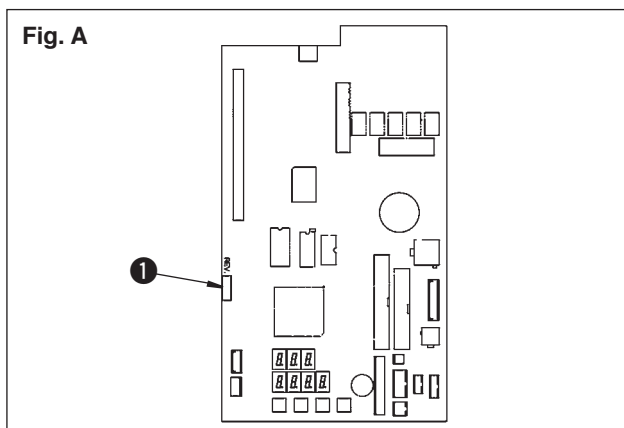
\* "CompactFlash(TM)" is the registered trademark of SanDisk Corporation, U.S.A.

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## 1. CHECK AT THE BEGINNING

### (1) Control box to be used



There are cases where the control box to be used may not be utilized. Check that REV. No. ❶ as shown in Fig. A is after "02". If the number is before it, the control box cannot be used.

### (2) List of parts to be used

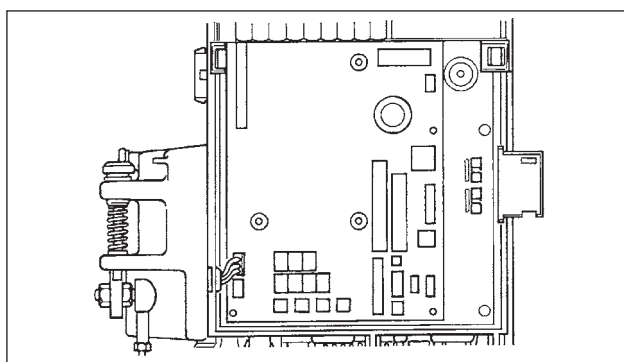
On the occasion of using DLU-5494N-7/IP-110C, check that the products (parts) below are on hand.

1. DLU-5494N-7 machine head
2. IP-110C panel
3. SC-910 control box
4. M-91 motor
5. Extension p.c.b (KT-01(EPF) p.c.b.) for DLU-5494N-7

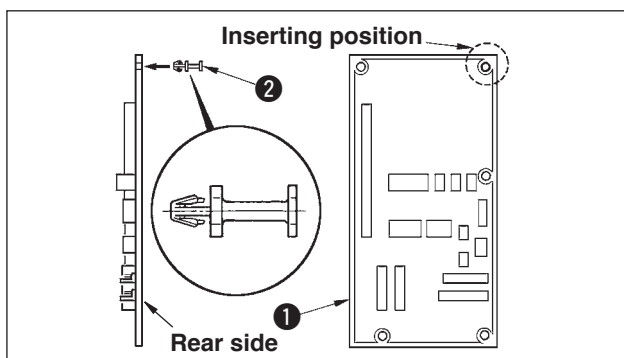
## 2. SETUP OF THE HARDWEAR

When the parts to be used are ready, install the extension p.c.b. on SC-910 following the procedure below.

### (1) Attaching the circuit board



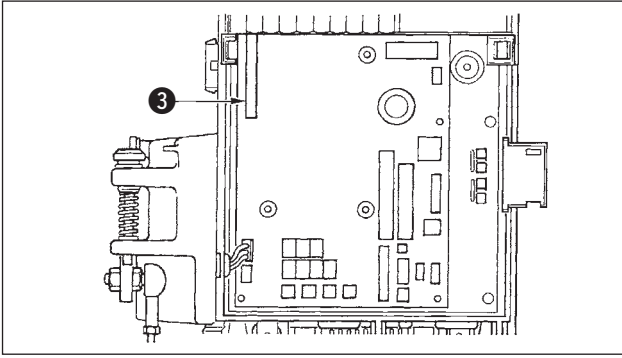
1. Open the front cover and upper cover according to the instructions given in the Instruction Manual for the control box main unit.



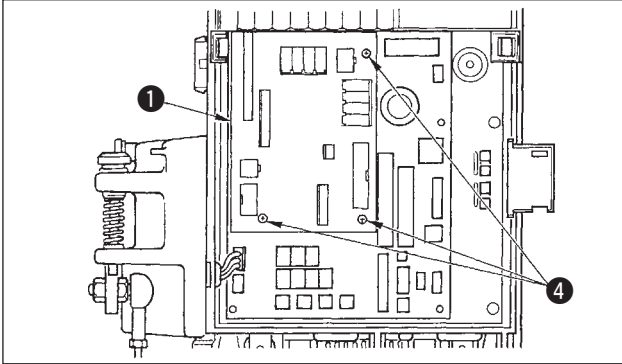
2. Insert stud ❷ supplied with the unit as accessories to KT-01(EPF) p.c.b. A (asm.) ❶.



Be careful of the inserting direction.



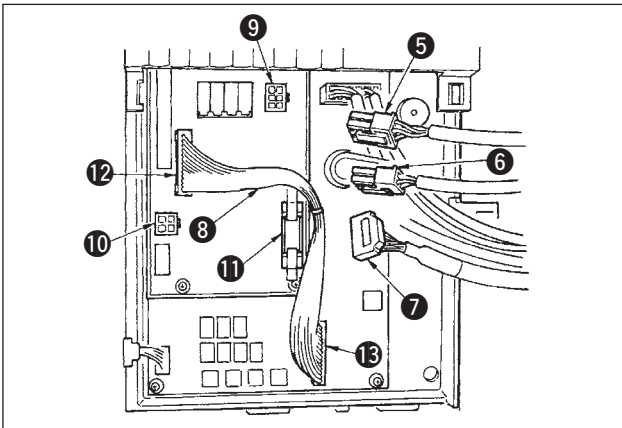
3. Insert KT-01(EPF) p.c.b. A (asm.) ① to connector CN47 ③ of the main unit as illustrated.



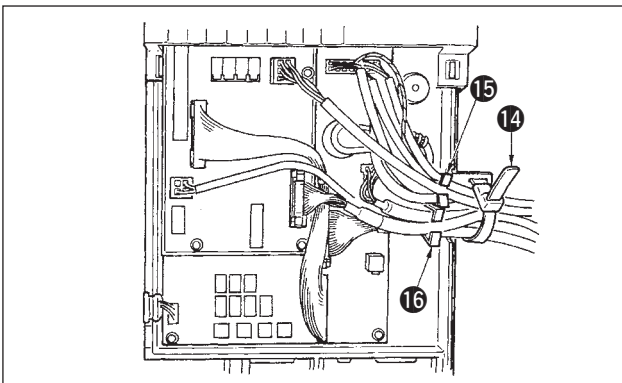
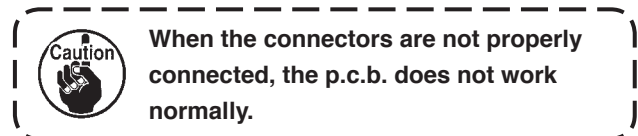
4. Securely fix KT-01(EPF) p.c.b. A (asm.) ① to the control box main unit using three screws ④ supplied with the unit as accessories.

\* For installing from M-91 motor to SC-910 control box or installing SC-910 control box on the table, refer to "Instruction Manual for DLU-5494N-7/SC-910/M-91/IP-110C/KT-01".

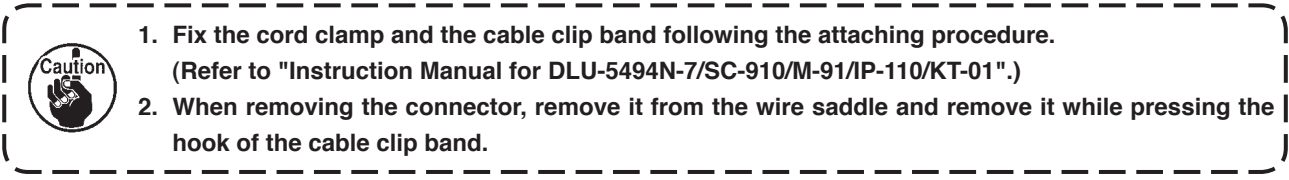
When the p.c.b. is installed, insert the cable to SC-910 following "Instruction Manual for DLU-5494N-7/SC-910/M-91/IP-110C/KT-01", and connect the cable to KT-01(EPF) p.c.b. following the steps below.



5. Connect 6P connector ⑤ coming from the machine head to connector ⑨ (CN139).
6. Connect 4P connector ⑥ coming from the machine head to connector ⑩ (CN134).
7. Connect 14P connector ⑦ coming from the operation display panel to connector ⑪ (CN132).
8. Insert KT-01(EPF) relay connector ⑧ to connector ⑫ (CN141) and connector ⑬ (CN42).



9. After inserting the connector, put all cords together with cable clip band ⑭ located on the side of the box.  
At this time, bundle the connectors which are arranged above the wire saddle to wire saddle ⑮ and those which are arranged below the wire saddle to wire saddle ⑯.



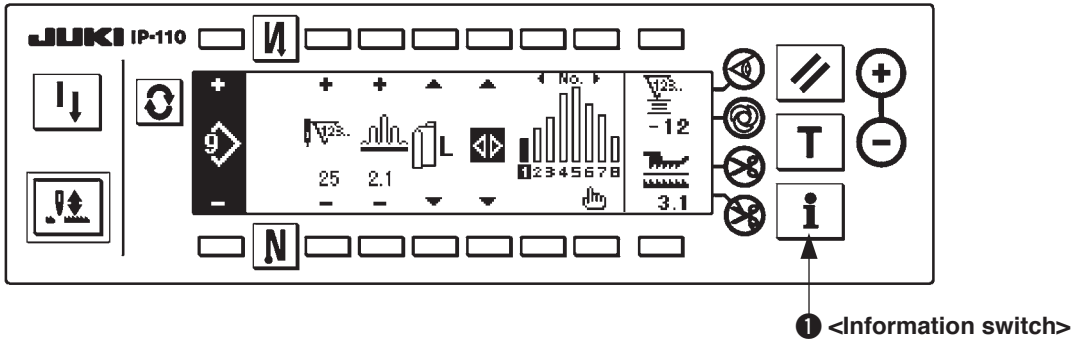
### 3. SETUP OF THE SOFTWARE

There are cases where the software in the state of delivery may be unadaptable. Perform checking and updating of the software following the procedure below.

#### (1) Checking procedure of the software version

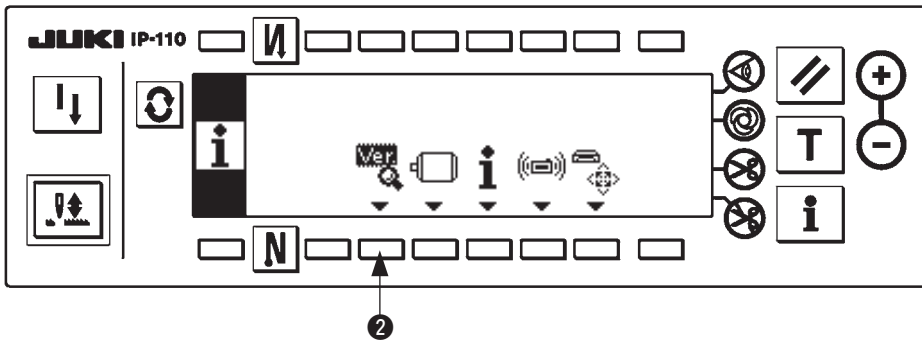
Turn ON the power, and press switch ❶ for three seconds.

##### ■ Normal screen

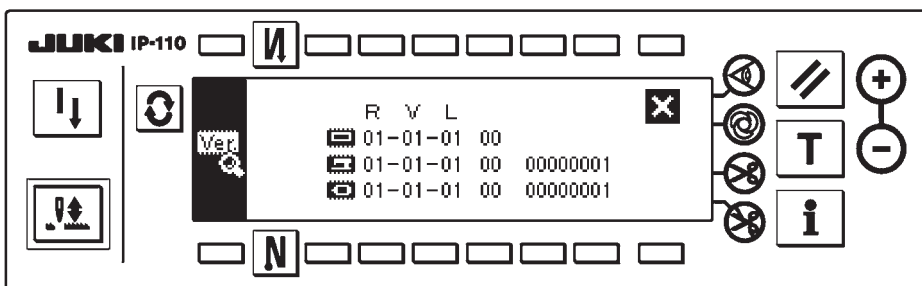



The screen is changed over to the screen below. Then press switch ❷ to open the RVL check screen.




##### ■ Information maintenance level screen



##### ■ RVL check screen



When the version of  is not displayed, there is a possibility that either of the software may be unadaptable. Check the versions of the aforementioned software.

-  : Version of IP-110 software
-  : Version of KT-01(EPF) p.c.b. software
-  : Version of main shaft software



Be sure to start from the software of IP-110 when performing the version-up of the software.

## (2) Rewriting procedure of the software by means of IP-110

From here, the rewriting procedure of the various kinds of software by utilizing IP-110 is explained.  
Start with CompactFlash(TM) inserted into IP-110.

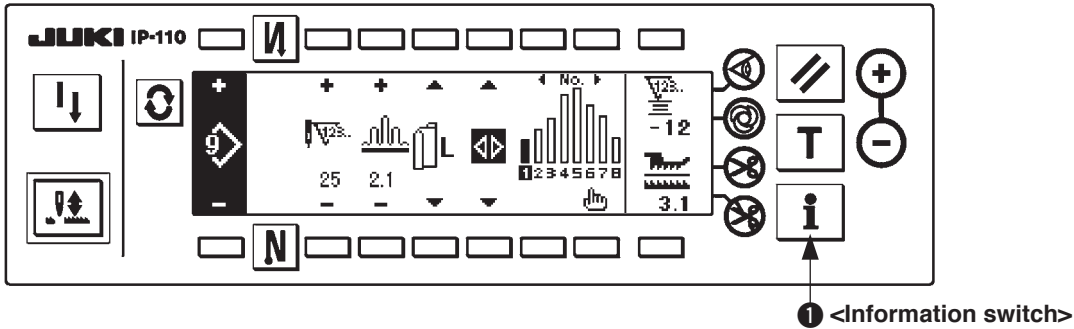


When CompactFlash(TM) is not inserted, the machine does not work properly.

### 1) Common procedure

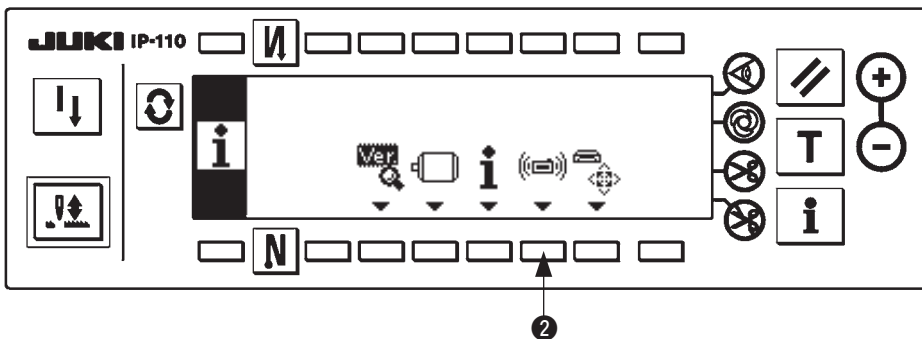
Turn ON the power and press switch ❶ for three seconds.

#### ■ Normal screen

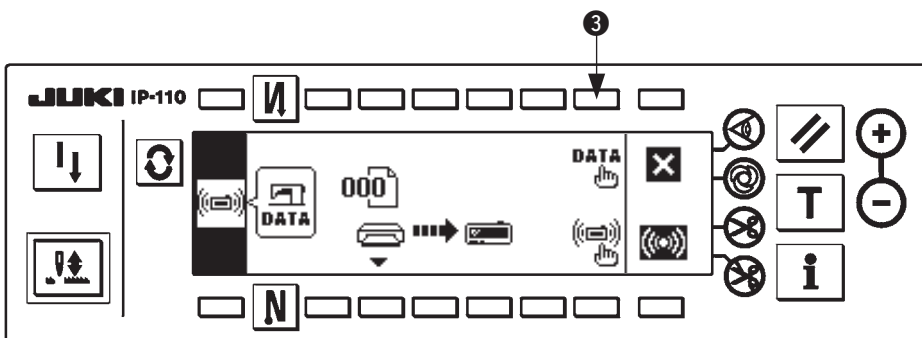


The screen changes to the screen below. Then press switch ❷ for three seconds to open the communication setting screen.

#### ■ Information maintenance level screen

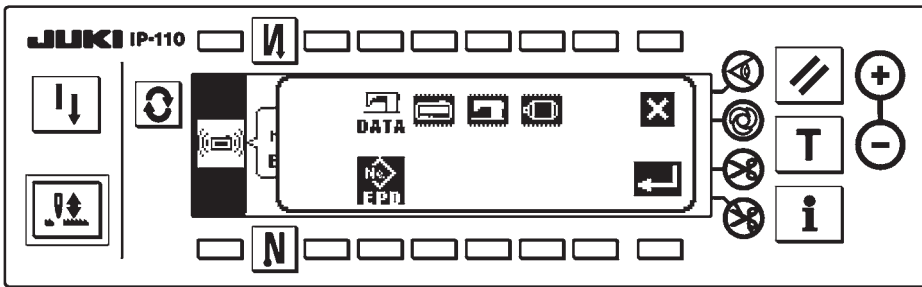


#### ■ Communication setting screen



When the screen has changed to the communication setting screen, press switch ❸ to display the data classification selection pop-up.

### ■ Data classification selection pop-up



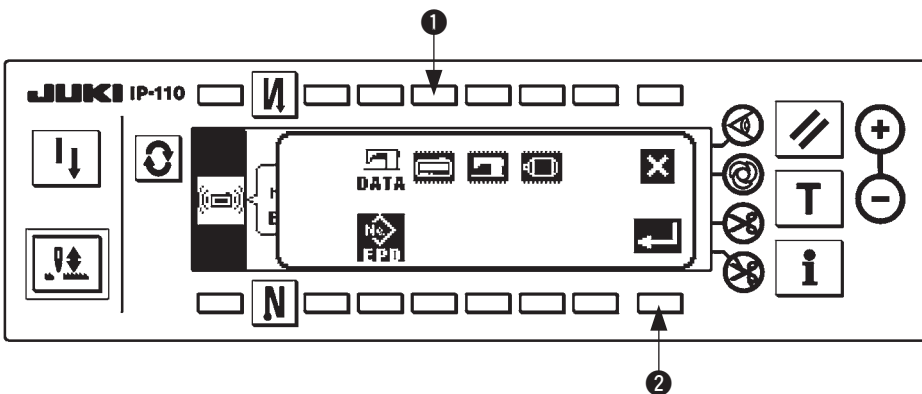
The common procedure is up to here. Then read the description below following the object to be rewritten.

Rewriting the software of IP-110 : refer to "[3. \(2\) 2\) Rewriting procedure of the software of IP-110](#)".

Rewriting of the software of main shaft : refer to "[3. \(2\) 3\) Rewriting procedure of the software of main shaft](#)".

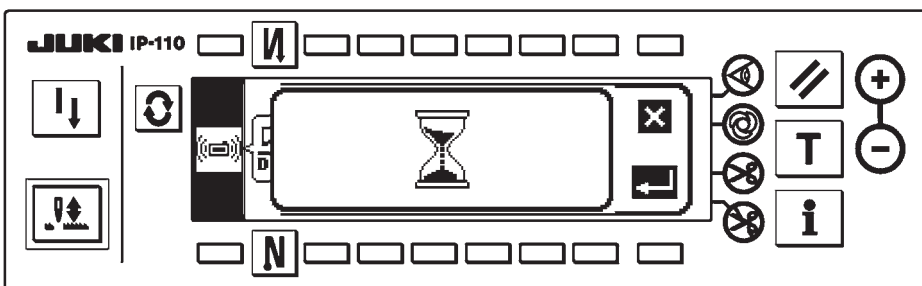
### 2) Rewriting procedure of the software of IP-110

#### ■ Data classification selection pop-up



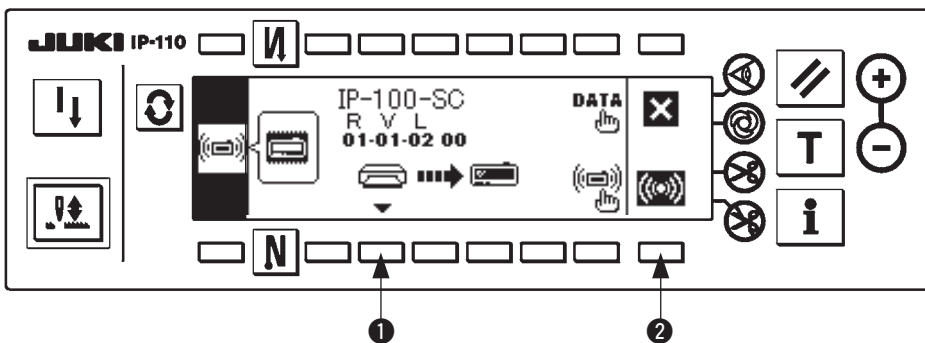
Press switch ① in the data classification selection pop-up to select the rewriting of the software of IP-110. Then press switch ② to execute reading.

#### ■ During reading data screen




It is the state that the program is read from CompactFlash(TM). Do not perform the panel operation.

■ Program selection screen IP-110



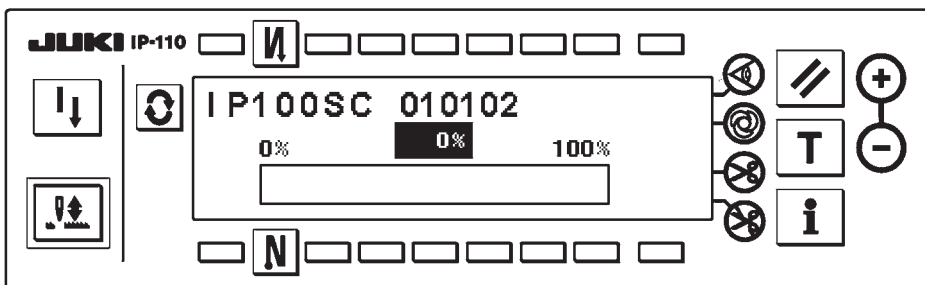
When the screen has changed to the aforementioned program selection screen, press switch ① and select the program. The machine type code and RVL of the selected program are displayed on the screen. Confirm that the machine type code and RVL of the program you desire to write are displayed and press switch ② to start writing.

The screen above is the example that the program of the machine type code "IP-100-SC" and RVL "01-01-02-00" has been selected.



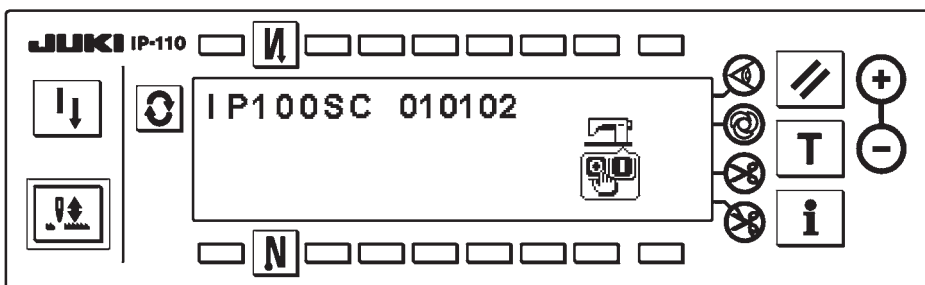
The machine type of the panel display when rewriting the program of IP-110 is IP-100. So, be careful.

■ During writing screen IP-110



The aforementioned screen is the during writing screen. During displaying the during writing screen, do not turn OFF the power. When the power is turned OFF during writing, the operation cannot be guaranteed.

■ Writing finish screen IP-110

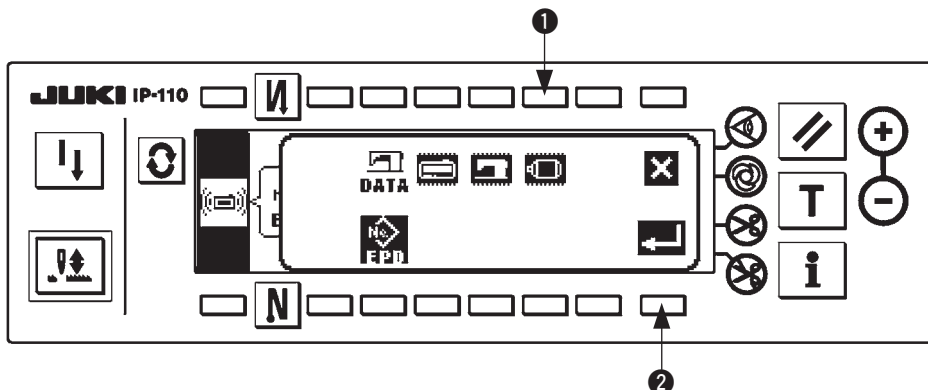


When the screen has changed to the aforementioned screen, writing is finished. Turn OFF the power. When rewriting the software of main shaft, start from "[3. \(2\) 1\) Common procedure](#)".



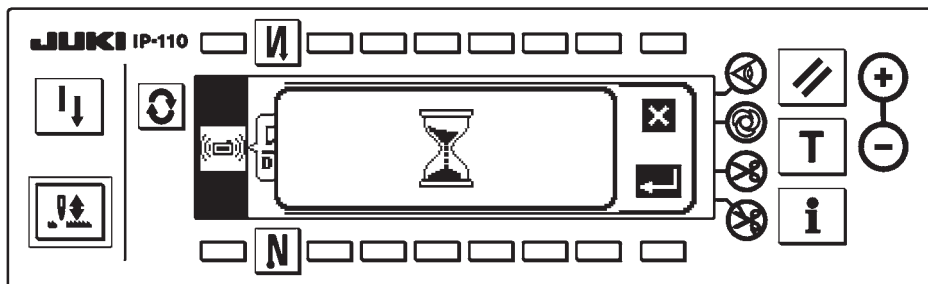
### 3) Rewriting procedure of the software of main shaft

#### ■ Data classification selection pop-up



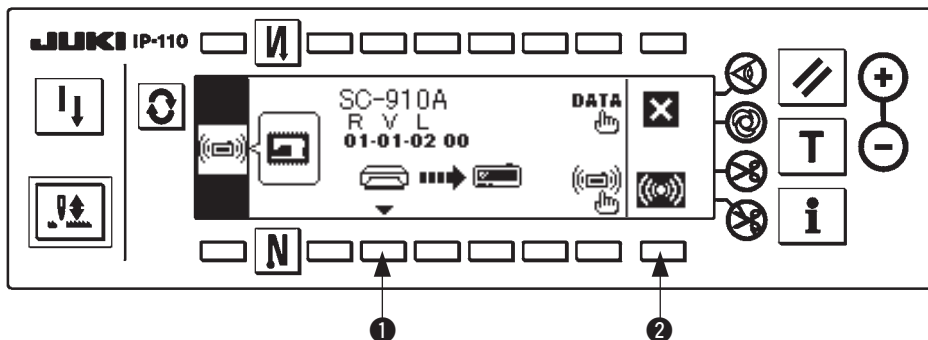
Press switch ① in the data classification selection pop-up to select the rewriting of software of main shaft. Then press switch ② to execute reading.

#### ■ During reading data screen



It is the state that the program is read from CompactFlash(TM). Do not perform the panel operation.

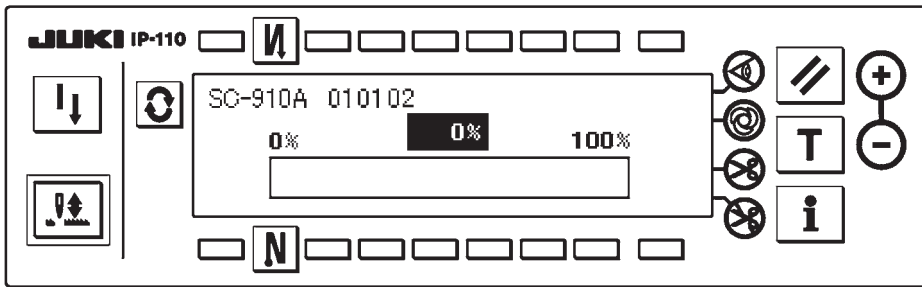
#### ■ Program selection screen Main shaft



When the screen has changed to the aforementioned program selection screen, press switch ① and select the program. The machine type code and RVL of the selected program are displayed on the screen. Confirm that the machine type code and RVL of the program you desire to write are displayed and press switch ② to start writing.

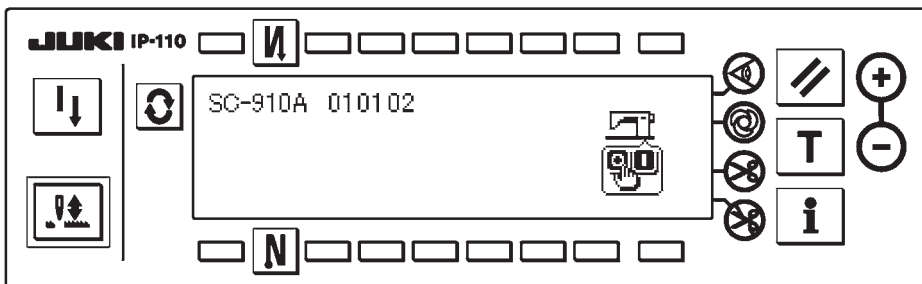
The screen above is the example that the program of the machine type code "SC-910A" and RVL "01-01-02-00" has been selected.

### ■ During writing screen Main shaft



The aforementioned screen is the during writing screen. During displaying the during writing screen, do not turn OFF the power. When the power is turned OFF during writing, the operation cannot be guaranteed.

### ■ Writing finish screen Main shaft



When the screen has changed to the aforementioned screen, writing is finished. Turn OFF the power. Now, the software setup operation is finished.