

1.8 How to Adjust the Magazine Amplifier Home Position

The machine uses a servo motor with an absolute position detection function (from FANUC, Ltd.) to control magazines. This means you do not have to return the magazine to its home position each time the NC power is turned ON. Under the following situations, however, the alarm [2015 “MG AMP UNIT” TROUBLED] occurs. In this case, follow the steps in Section 1.8.1 to adjust the magazine home position.

- The battery used to memorize the absolute position has gone dead.
- A position detector wire or plug was disconnected.
- The position detector or motor was replaced.

1.8.1 Magazine Home Position Adjustment

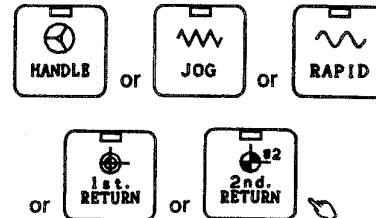
- (1) Reset the **EMG. STOP** pushbutton, then press the **READY** key to get the machine ready for operation. Then, press the **RESET** key. Even if the machine was already in the ready status, be sure to press the **RESET** key.



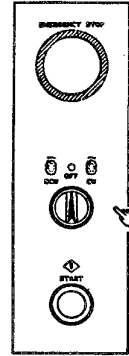
- (2) Use pot No. 1 as the indexing pot position. If pot No. 1 is not at a position close to the indexing position, use another pot to set a temporary home position, then manually index pot No. 1. After pot No. 1 is indexed, readjust the home position.
- (3) Follow the procedure described in Section 3.1.2 “How to Change Machine Parameters” to enter “1” (valid) to the PMC parameter keep relay K04.0 (ATC adjustment parameter).

Once you set this parameter, you do not have to set this each time the NC power is turned ON. When you finish adjusting the magazine home position, however, be sure to change this parameter back to “0”.

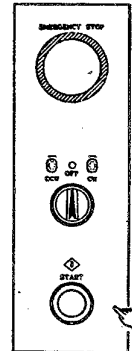
- (4) Select one of the 5 mode select keys: **HANDLE**, **JOG**, **RAPID**, **1st RETURN**, and **2nd RETURN**.



- (5) Use the **MG TURN DIRECTION** switch on the magazine control panel to select the desired direction.



- (6) Press and hold the **START** pushbutton on the magazine control panel to slowly move the magazine. Release the pushbutton to stop the movement.



- (7) Move only the magazine you want to adjust its home position, a distance approximately a half of the pot diameter. Do not move any magazine that is not an object of home position adjustment.

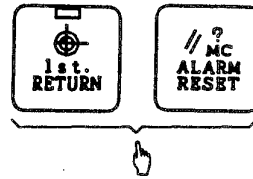
- (8) Press the **EMG. STOP** pushbutton to stop the machine, then turn OFF the NC power. Wait for few seconds, then turn the NC power back ON.



- (9) Repeat steps (1) and (4) above.
- (10) Follow steps (5) and (6) above to set the pot to the magazine home position. If the magazine has already set its home position, always move it slightly to readjust to the home position required. If you do not do so, the home position required is not memorized.

- (11) Let the magazine amplifier memorize the home position.

Simultaneously press the **1st RETURN** and **ALARM RESET** keys. The current position is memorized as home position only for the magazine which has been moved manually. The indexed pot No. is the position No. of pot No. 1.



- (12) Follow the procedure described in Section 3.1.2 "How to Change Machine Parameters" to enter "0" (invalid) to the PMC parameter keep relay K04.0 (ATC adjustment parameter).

- (13) Press the **EMG. STOP** pushbutton. Then, turn OFF the NC power.



- (14) If you used a pot other than pot No. 1 to adjust the magazine home position, use the normal indexing operation to manually index pot No. 1. Then always readjust the home position as described in steps (9) through (13) above.