NOTES:

- When the canned cycles are executed by turning on the SINGLE BLOCK switch, a temporary stop is made in an intermediate position, and the FEED HOLD lamp lights up.

  (1) After positioning to (X, Y) point
  (2) After positioning to R point
  (3) After termination of each cycle, if L command has been given.

  The single block stop after the completion of canned cycles is as usual, and the FEED HOLD lamp does not light up.

- Be sure to designate R point and Z point by programming R and Z before entering the canned cycle mode. R point and Z point are cleared when canned cycles are cancelled.

- When executing canned cycles with the address data changed, the block requires any of the following address commands. The canned cycles will not be executed otherwise.

X, Y, Z, 4, R

- When M, S, T or B† code is given in the canned cycle, M, S, T signals are sent at the first positioning in the block. In general, M, S, T should be commanded in their own block.

- An input error occurs when any of the following G codes are programmed in the canned cycle mode.

G codes of * group except for G04 G70, G71, and G72
G codes of 07 group (G41, G42)

  When programming G92, G27, G28 etc., make sure to cancel the canned cycles in advance. Cancellation is made when a G code of 01 group is programmed.

- An independent block of dwell (G04) can be programmed in the middle of the canned cycle mode. Dwell is executed properly.

- An input error occurs when canned cycles are programmed in the tool radius compensation C mode (G41, G42).

- Start of spindle forward or reverse (M03 or M04) should be executed by automatic operation commands before entering canned cycles. Do not enter into canned cycles after manually switching the spindle between forward and reverse.

- Execution of subprogram (M98) in canned cycle mode. In a canned cycle mode, M98 P··· L··· ; can be programmed to call up subprogram and the canned cycle is continued in the subprogram. The address P (program No. of the first block of subprogram) with M98 command destroys temporary the contents of address P for designation of dwell time, but after the jumping to subprogram, it resumes the contents.

Note:

- Programming consideration of M98 in the canned cycle mode is the same as those of other than canned cycle modes. (e.g. Restriction of execution to no more than four levels, M98 command from punched tape and the like.)

- Address L for designation of repetition number of subprograms is nonmodal. But described below is a special case that the address L is retained temporarily.

EXAMPLE

G91 G81 X1000 R-2000 Z-3000 F100 ;

L3 ; ··· The canned cycle is not executed because X, Y, Z, 4 or R is not designated in this block. The L3 is retained.

X2000 ; ··· The canned cycle G81 is executed 3 times using the retained L3. After the execution, the L3 is erased.

As mentioned above, address L in canned cycle is retained until actually executed.

- Changing of R point and Z point

  When R is commanded instead of Z during the execution of canned cycle in G91 mode, Z becomes incremental value from the new R point. Care should be taken.

  G92 X0 Y0 Z0

  G91 X··· Y··· R-5.0

	R point	Z point
Z-10.0F ;	-5.0	-10.0
X··· R-7.0 ;	-7.0	-12.0
X··· Z-3.0 ;	-7.0	-10.0
R-4.0Z-11.0 ;	-4.0	-15.0