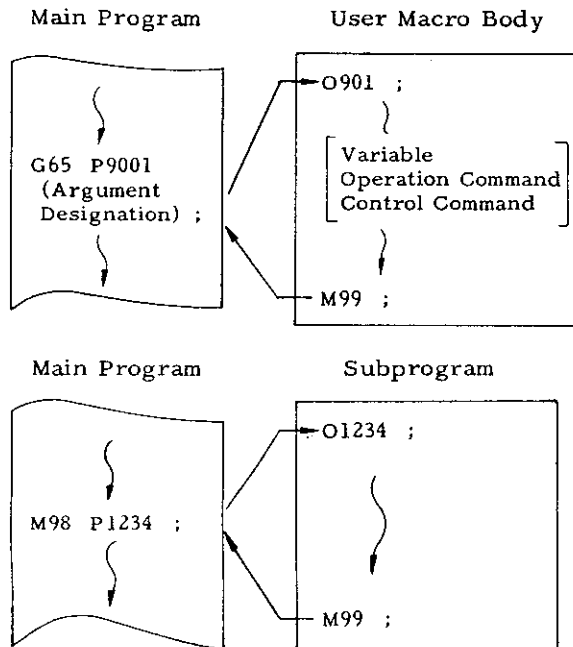


## 2.11 USER MACRO (G65 AND G66)

Special programs written by the machine builder or user by the use of a group of instructions are registered in the part program memory. These programs can be called by the use of G65 or G66 command to execute them.

These special programs are referred to as the user macro body, which can be written and stored in the same format as a subprogram.



However, unlike a subprogram, a user macro allows:

- (1) Use of variables.
- (2) Computation between variable or between constants.
- (3) Use of control commands such as conditional branch.

These features enable the user macro body to provide a generalized program that requires complicated computations and decisions.

The "argument designation" in calling a user macro body from the main program makes it possible to assign the real numbers to the variables in the body. This enables this user macro to run as a series of specific program that provide tool movements. In this manual, the user macro body is sometimes referred to as "macro program" or, simply, "macro."

### 2.11.1 USER MACRO CALL COMMANDS

A user macro body may be called in the following five manners:

No.	Type of Call	Code	Remarks
1	Simple call	G65	G67: For cancel.
2	Modal call	G66	
3	Call by arbitrary G code	Gxx	
4	Call by M code	Mxx	
5	Call by T code	Txxxx	

#### (1) Simple Call (G65)

G65 P... L... (argument designation) ;

The macro program whose program number was specified by P is called and is executed L times. The default value of L is 1. When the designation of an argument to the user macro is desired, specify it in (argument designation). "Argument designation" is the assignment of real numbers to the "local variables" used in the user macro. For details, see 1.3 ARGUMENT DESIGNATION.

#### (2) Modal Call (G66 and G67)

G66 P... L... (argument designation) ;

This command provides the mode to call the macro program of the program number specified by P. Each time a move command is executed, the specified macro is run L times.

G67 ;

This command cancels the modal call mode.

#### (3) Macro Call by Arbitrary G Code

Gxx (argument designation) ;

This provides the command which is equivalent to G65 P... (argument designation) ;. For Gxx, ten sets of G codes of G01 through G199 except for those designated by NC maker may be set for the parameter. The macro program numbers which correspond to these G codes are as follows: