

## SECTION 41 USER MAINTENANCE FUNCTION

### 41-1. Overview

This function allows users to set maintenance items as they need.

### 41-2. Function Detail

Select the USER MAINTENANCE screen from the PARAMETER screen.

Set the data for the user regular maintenance parameters from No.1 to No.24.

If a counted hour exceeds the notification hour and warning hour, an alarm D and alarm C are raised respectively.

#### 41-2-1. Parameter Setting on the User Maintenance Screen

NO.	ITEM	NOTI.	WARN.	COUNT	TYPE	CHANGE
1	500001	900001	0	ATC COUNT	2010/ 1/ 1	
2	500002	900002	0	AXIS MOV	2010/ 1/ 2	
3	500003	900003	0	SPDL REV	2010/ 1/ 3	
4	500004	900004	0	CUTTING	2010/ 1/ 4	
5	500005	900005	0	RUNNING	2010/ 1/ 5	
6	500006	900006	0	POWER ON	2010/ 1/ 6	
7	500007	900007	91.87	ALL TIME	2010/ 1/ 7	
8	500008	900008	0		2010/ 1/ 8	
9	500009	900009	0	ATC COUNT	2010/ 1/ 9	
10	500010	0	0	ATC COUNT	2010/ 1/10	
11	0	900011	0	ATC COUNT	2010/ 1/11	
12	500012	900012	0	ATC COUNT	2010/ 1/12	

Name	Detail
ITEM	A message that indicates each item.
NOTI.	An alarm D appears when a counted hour (COUNT) reaches a setting value of NOTI.
WARN.	An alarm C appears when a counted hour (COUNT) reaches a setting value of WARN.
COUNT	The counted hour (COUNT) from the day when maintenance is performed.
TYPE	Type of hour counting.
CHANGE	Date (year/month/day) when maintenance is performed.

## Parameters detail

The parameters can be backed up or loaded, or can be set or cannot be set depending on the following conditions.

- CHANGE MODE (See 41-2-2.)
- User maintenance Definition File (See 41-2-3.)
- TYPE

### [ITEM]

- Blank as default. Character string up to 16 bytes long can be set in both 1 and 2 bytes during the CHANGE mode.
- The background color becomes gray when the setting is disabled (white when enabled).

User maintenance definition file	Change mode	Backup	Setting	Remarks
Provided	(Free)	×	Disabled	Items not found in definition file come with blank.
Not provided	End mode	○	Disabled	
	During mode		Enabled	

### [NOTI.]

- The default is "0".
- When the setting value is "0", the alarm D raised when a notification hour is exceeded does not appear.
- The unit is hour (COUNT). When no TYPE is selected, the characters in the row are displayed in pale blue.

TYPE	Backup	Setting/Adding
Selected	○	Disabled
Not selected		Enabled (0 to 999999)

### [WARN.]

- The default is "0".
- When the setting value is "0", the alarm C raised when a warning hour is exceeded does not appear.
- The unit is hour (COUNT). When no TYPE is selected, the characters in the row are displayed in pale blue.

TYPE	Backup	Setting/Adding
Selected	○	Disabled
Not selected		Enabled (0 to 999999)

**[COUNT]**

- The default is "0". The maximum value is "999999".
- Setting is disabled.
- The unit is hour (COUNT). When no TYPE is selected, the characters in the row are displayed in pale blue.
- When ALL TIME is selected for TYPE, the counted hour is counted from the day when maintenance is performed at the power ON.  
When other types are selected, it is started with the last value. (When no TYPE is selected, it is started with "0".)
- When CHANGE is "0/ 0/ 0", the counted hour is not accumulated regardless of the selected TYPE.  
The counted hour is also not accumulated when no TYPE is selected.

**[TYPE]**

- No type is selected at default.
- Changing the TYPE loads the default value "0/ 0 /0" at CHANGE, which also clears the counted hour to "0".

Change mode	Backup	Setting	Remarks
Mode end	○	Disabled	
During mode		Enabled	

- The TYPE items provided are as follows.

TYPE	Detail
Blank	(No TYPE has been selected.)
ALL TIME	The throughout time uninterrupted by power ON/OFF
POWER ON	Accumulated time during power ON
RUNNING	Accumulated time during program execution
CUTTING	Accumulated time during a cutting command
SPDL REV	Accumulated time during spindle rotation
AXIS MOV	Accumulated time during axis travel
ATC COUNT	The number of change times by ATC (optional)

**[CHANGE]**

- The default value is "0/ 0 /0". Setting is enabled at any time.
- When ALL TIME is selected for TYPE, the counted hour is counted from the day when maintenance is performed. With other selection, the counted hour is cleared to "0".

## 41-2-2.CHANGE MODE

To change the ITEM and TYPE on the User Maintenance screen, it is necessary to switch the mode between "change mode" and "end mode change" modes by pressing [F1] (CHANGE MODE) which is shown by pressing the extension function key. (Note that the ITEM cannot be changed when a user maintenance file is provided as described in "Parameters detail".)

- By pressing [F1] (CHANGE MODE) during the END MODE CHANGE mode, the message "Change mode OK?" appears as shown in the screen below. Select YES to select the "change mode" mode.
- By pressing [F1] (END MODE CHANGE) during the "change mode" mode, the mode is terminated.
- The data set in the "change mode" mode are backed up.

During the "mode change" mode, the indication CHANGE MODE appears on the upper right side.

The screenshot shows the USER MAINTENANCE screen with a table of parameters. A dialog box is overlaid on the table, asking "Change mode OK?". The table has columns for NO., ITEM, NOTI., WARN., COUNT, TYPE, and CHANGE. The dialog box is positioned over row 5.

NO.	ITEM	NOTI.	WARN.	COUNT	TYPE	CHANGE
1	-----/-----	500001	900001	0	ATC COUNT	2010/ 1/ 1
2	2	500002	900002	0	AXIS MOV	2010/ 1/ 2
3	3	500003	900003	0	SPDL REV	2010/ 1/ 3
4	4	500004	900004	0	CUTTING	2010/ 1/ 4
5						
6						
7	7	500007	900007	9187	ALL TIME	2010/ 1/ 7
8	8	500008	900008	0		2010/ 1/ 8
9	9	500009	900009	0	ATC COUNT	2010/ 1/ 9
10	10	500010	0	0	ATC COUNT	2010/ 1/10
11	11	0	900011	0	ATC COUNT	2010/ 1/11
12		500012	900012	0	ATC COUNT	2010/ 1/12

Change mode OK ?

PRE(SET)

CHANGE DATA DISPLAY

YES NO

ME32123R0704700040001

### 41-2-3. User Maintenance Definition File

It is possible to set the data of ITEM on the User Maintenance screen by using a text file. This file is called "user maintenance definition file", which is stored at and with the name as: "**D:/MD1/USERMAINTE/USERMAINTE.TXT**".

In each line of the file, prepare the data as follows. (Up to 250-byte characters per line can be written and the file size should be within 10 Kbyte.)

#### <<NO. of ITEM>>, <<message for ITEM>>, <<comment>>

- <<NO. of ITEM>>  
Nos. from 1 to 24  
 If nos. or characters (including space, TAB) other than 1 to 24, the line is ignored.  
 If the same nos. exist, the first one is applied.
- <<Message for ITEM>>  
Message up to 16 byte characters  
 The characters over 16 bytes are ignored. Thus a 2-byte character used after 15 bytes may be shown half.  
This item is not covered by multi-language. The message will not be displayed properly if the language is switched.  
 When no message is input (as shown in "1,,"), no message is shown.
- <<Comment>>  
 Not used.

In addition, if <<NO. of ITEM>> and the first "," are given in succession from the top of the line, and a no. between 1 and 24 is selected for <<NO. of ITEM>>, the ITEM is regarded as defined.

Example:

```
11,ITEM-A,***
 2,ITEM-B,***
25,ITEM-B,***
2,
2,1234567890123456,***
3,user.period.nameA,***
```

ME32123R0704700050001

- The ITEM for No.11 is "ITEM-A".
- (Ignored since a space exists in front of <<NO. of ITEM>>)
- (Ignored since the item no. is out of the range.)
- No message for the ITEM of No.2.  
(Ignored since the No.2 has been registered already.)
- The ITEM for No.3 is "user.period.name"  
("A" is ignored since it exceeds 16 bytes.)
- (Other items are shown in blank since they are not defined.)  
(The TYPE is not selected.)

## 41-2-4.Alarm

### Alarm C

---

3122 Maintenance be necessary

A counted hour has exceeded the warning hour in the user maintenance function (in the parameter setting mode).

**[Index]**

None

**[Character-string]**

None

**[Code]**

The ITEM no. that has exceeded the warning hour

**[Measures to Take]**

Take appropriate measures according to the code. Set the date when the measure is taken to the CHANGE of the code ITEM no.

### Alarm D

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4122 Maintenance be necessary

A counted hour has exceeded the notification hour in the user maintenance function (in the parameter setting mode).

**[Index]**

None

**[Character-string]**

None

**[Code]**

The ITEM no. that has exceeded the notification hour

**[Measures to Take]**

Take appropriate measures according to the code. Set the date when the measure is taken to the CHANGE of the code ITEM no.