

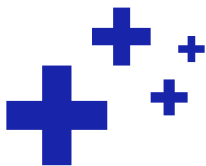


CNC System Parameters Manual

Parameters

Please read this manual thoroughly and understand its contents before installing this product.

Please designate a custodian to keep it safely in a designated location so that it can be read at any time.



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Shanghai Lynuc CNC Technology Co., Ltd.

Summarize

About this manual

- Name of manual Lynuc CNC System Parameter Manual
- Document type Parameter description of Lynuc CNC system
- Version Ver 3.1

This manual is intended to be read by

This manual is oriented:

- Electrical Engineer/Product Technician/Technical Service Personnel/Product User

Operational prerequisites

Readers should:

- Familiarize yourself with the relevant concepts in this manual
- Trained in the operation of rhenium sodium gram control devices

Points for attention

- Before modifying the system parameter settings, please familiarize yourself with this manual and fully understand its contents. Save it in the designated location so that you can read it at any time.
- The end user can only modify parameters with normal user privileges; the machine tool builder can only modify parameters at the machine shop level. parameters at the LYNUC level can only be modified by the CNC system developer.
- Incorrect modification of parameters may result in machining errors or cause safety accidents on the machine and in people.

Important notes

The symbols in the tables of this manual indicate the meaning as follows:

- E : Press enter to confirm and take effect
- R: Press enter to confirm and press reset to take effect
- P: Press enter to confirm and reboot the controller to take effect

Manual Version History

Version	Release Date	Revision description
Ver3.1	2017/02/23	According to the overall update of the parameter list (except for 1. mechanical parameters / 8 error messages), the servo parameters are divided into "6.1 U series servo parameters" and "6.2 N3 N5 servo parameters".

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1. Machine

(1) G83/G87 Clearance

001977	Input unit	mm	Effective time	User level
G83/G87 Clearance	Input Range	0~ 999.999	E	Normal user
	Default value	0.5		
Description:	When the G83 instruction is executed, the rising distance when the tool is lifted is set after the Z-axis is lowered by the specified feed amount.			
Attention:	Detailed instructions can be found in the LYNUC CNC Programming Manual [G83 (Woodpecking Drilling Cycle)].			

(2) G84/G88 Clearance

001930	Input unit	mm	Effective time	User level
G84/G88 Clearance	Input Range	0~ 999.999	E	Normal user
	Default value	0.5		
Description:	When the G84 instruction is executed, the rising distance when the tool is lifted is set after the Z-axis is lowered by the specified feed amount.			
Attention:	Refer to the LYNUC CNC Programming Manual [G84 (Rigid Tapping Fixed Cycle)] for detailed instructions.			

(3) G73 Clearance

001978	Input unit	mm	Effective time	User level
G73 Clearance	Input Range	0~ 999.999	E	Normal user
	Default value	0.5		
Description:	When the G73 instruction is executed, the rising distance when the tool is lifted is set after the Z-axis is lowered by the specified feed amount.			
Attention:	Refer to the LYNUC CNC Programming Manual [G73 (High-Speed Deep Drilling Cycle)] for detailed instructions.			

(4) Clearance of G76/G87 (fine/reverse boring)

001971	Input unit	mm	Effective time	User level
Clearance of G76/G87 (fine/reverse boring)	Input Range	0~ 999.999	E	Normal user
	Default value	0.5		
Description:	When executing the G76 or G87 Boring instruction, set the offset to move in the opposite direction of the boring tool tip during the letting process.			
Attention:	Detailed instructions can be found in the LYNUC CNC Programming Manual [G76 (Finish Boring Cycle) and G87 (Back Boring)].			

(5) Direction of avoidance for G76/G87 parameter Q

001996	Input unit	mm	Effective time	User level
Direction of avoidance for G76/G87 parameter Q	Input Range	0~ 3	E	Normal user
	Default value	0		
Description:	When executing the G76 or G87 Boring instruction, when using the Q parameter to specify the offset, the direction is determined by [Boring Setback Direction], where 0~3 corresponds to X+, X-, Y+, Y- respectively. If the Q parameter is less than zero, then the Q parameter will be automatically corrected.			
Attention:	Detailed instructions can be found in the LYNUC CNC Programming Manual [G76 (Finish Boring Cycle) and G87 (Back Boring)].			

(6) G83/G87 High-speed deep hole drilling

001929	Input unit	no	Effective time	User level
G83/G87 High-speed deep hole drilling	Input Range	0~ 1	E	Normal user
	Default value	1		
Description:	When the G83 or G87 instruction is executed, it can be selected as high-speed drilling or deep-hole drilling. 0: High-speed drilling when only the retracted amount specified by [O01977] is retracted after feeding the specified feed amount each time; 1: Deep-hole drilling when the retracted amount is retracted to the R reference point each time to facilitate chip removal.			
Attention:	Refer to the LYNUC CNC Programming Manual [G83 (Pecking Drilling Cycle)] for detailed instructions.			

(7) Percentage of programmed feed speed

001968	Input unit	%	Effective time	User level
	Input Range	0~ 100		
Program feed speed percentage	Default value	30	E	Normal user
Description:	For some milling and continuous cutting commands in Intelligent Editing (NCExpert), when the cutting speed F is specified, the downturn speed when cutting is performed = F * program feed speed percentage.			
Attention:	For details, refer to the LYNUC CNC Programming Manual [Common Instructions for Model Machining].			

The following commands apply to the setting of this parameter:

G160.1 Bi-directional milling of circular planes	G160.2 Bidirectional milling of rectangular planes	G160.3 Isotropic milling of rectangular planes	G161.1 Bi-directional milling of round cavities
G161.2 Bidirectional milling of rectangular cavities	G162.1 Circular internal contour milling	G162.2 Round outer contour milling	G162.3 Rectangular internal contour milling
G162.4 Rectangular inner contour milling (rounded corners)	G162.5 Rectangular outer contour milling	G162.6 Helix milling internal round	G162.7 Spiral milling
G163.1 Rectangular frame drilling	G163.2 Rectangular mesh drilling	G163.3 Straight-line drilling	G164.1 Rectangular frame tapping
G164.2 Rectangular mesh tapping	G164.3 Straight tapping		

(8) Thread cutting chamfering angle

001927	Input unit	degree	Effective time	User level
	Input Range	30~ 70		
			E	Normal user

Thread cutting chamfering perspectives	Default value	45		
	Description: Set the thread chamfer angle.			
Attention:				

(9) Thread cutting chamfer length

001928	Input unit	0.1 pitch	Effective time	User level
Thread cutting chamfer length	Input Range	1~99	E	Normal user
	Default value	1		
Description: Set the thread chamfer length.				
Attention:				

(10) Tool Number

002024	Input unit	no	Effective time	User level
Tool Number	Input Range	1~99	E	Normal user
	Default value	99		
Description: Set the maximum tool number that the system can provide.				
Attention:				

(11) Pot Number

008003	Input unit	no	Effective time	User level
Pot Number	Input Range	0~ 99	E	Machine Tool Plant Users
	Default value	0		
Description: Set the total number of tool pockets in tool magazine 1, regardless of the specific model of the tool magazine.				
Attention: In ATC's tool counting logic, the number of tool sets is taken into account.				

(12) Distance Among Pot

008010	Input unit	mm	Effective time	User level
	Input Range	0~ 500	E	Machine Tool Plant

Distance Among Pot	Default value	0		Users
Description:	Sets the spacing of the pockets. This parameter is valid when there is ATC automatic tool change function. It is specially used for the management of large diameter tools in ATC tool magazine.			
Attention:				

(13) Toolgroup Number

002027	Input unit	no	Effective time	User level
	Input Range	1~ 100		
Toolgroup Number	Default value	no	E	Machine Tool Plant Users
Description:	Set the number of tool groups. This feature is not yet available.			
Attention:				

(14) Tool Number Per Group

002028	Input unit	no	Effective time	User level
	Input Range	1~ 100		
Tool Number Per Group	Default value		E	Machine Tool Plant Users
Description:	Sets the maximum number of tools in a tool group. This feature is not yet available.			
Attention:				

(15) Large Tool

008009	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Large Tool	Default value	OFF	P	Machine Tool Plant Users
Description:	Open the broadsword management function, turn on this function, the [Tool Magazine Registration] screen will display the tool magazine broadsword setting options, which can be used for broadsword management. ON: open; OFF: not open.			
Attention:	ON/OFF is switched by the SPACE key.			

(16) Tool Checker

008016	Input unit	no	Effective time	User level
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	Input Range	ON; OFF.	E	Machine Tool Plant Users
Tool Checker	Default value	OFF		
Description:	Whether the tool detection sensor is installed on the machine tool, after the sensor is installed, the system can display the presence or absence of the tool in the tool pocket according to the detection result. ON: installed; OFF: not installed.			
Attention:	ON/OFF is switched by the SPACE key.			

(17) Atc Type

008014	Input unit	no	Effective time	User level
Atc Type	Input Range	0~ 2	E	Machine Tool Plant Users
	Default value	0		
Description:	This parameter is valid when there is ATC automatic tool change function. 0 means no tool magazine; 1 means arm type magazine; 2 means clamp arm type magazine; please set it to 0 for row type magazine.			
Attention:	In general, please set the row tool magazine to 0.			

(18) Ignore inter-path wait signals

001951	Input unit	no	Effective time	User level
Ignore inter-path wait signals	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	no		
Description:	Set to ignore the dual-channel intersystem wait signal.			
Attention:	ON/OFF is switched by the SPACE key.			

(19) Handwheel 4Th Axis

002131	Input unit	no	Effective time	User level
Handwheel 4Th Axis	Input Range	0~6	E	Machine Tool Plant Users
	Default value	4		
Description:	Set the 4th axis selection of the system default handwheel. This function is valid when the standard handwheel provided by the system is selected. Among them, 4, 5, and 6 represent A, B, and C.			
Attention:				

(20) Handwheel 5Th Axis

002133	Input unit	no	Effective time	User level
	Input Range	0~6		E
Handwheel 5Th Axis	Default value	5		
Description:	Set the 5th axis selection of the system default handwheel. This function is valid when the standard handwheel provided by the system is selected. Among them, 4, 5, and 6 represent A, B, and C.			
Attention:				

(21) Handwheel 6Th Axis

002134	Input unit	no	Effective time	User level
	Input Range	0~6		E
Handwheel 6Th Axis	Default value	6		
Description:	Set the 6th axis selection of the system default handwheel. This function is valid when the standard handwheel provided by the system is selected. Among them, 4, 5, and 6 represent A, B, and C.			
Attention:				

(22) Tool life management

Note: Due to the secondary development of the machine tool factory users, this manual [Machine] part does not talk about the settings, please refer to the final operation of the user to use the current machine tool user's manual or consult the secondary development personnel, a detailed understanding of its functions before modification or use.

2. Channel

(1) Arc Tolerance

030001	Input unit	mm	Effective time	User level
	Input Range	0~1		
	Default value	0.25		
Arc Tolerance			R	Normal user
Description:	Set the maximum allowable value of the error of the start point radius and end point radius of the circular interpolation commands G02 and G03. When the radius error exceeds this set value, the system reports an error.			
Attention:				

(2) Default Feedrate

032961	Input unit	mm/min	Effective time	User level
	Input Range	10~10000		
	Default value	1000		
Default Feedrate			R	Normal user
Description:	Set the default feedrate F when the machine is started.			
Attention:				

(3) Blockskip Defaultly Activate

032958	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
	Default value	OFF		
Blockskip Defaultly Activate			R	Normal user
Description:	When the program is running, set whether to skip the block marked with "/". When the parameter is set to ON and "Select Skip" is selected on the control panel, skipping the block marked with "/" is not executed.			
Attention:	The following table shows the functions that are enabled when the parameter settings are combined with the control panel:			

[System-Parameters- Select Jump]	Control Panel [Select Jump]	"/" skip
OFF	OFF	OFF
OFF	ON	ON

ON	OFF	ON
ON	ON	ON

(4) Max Feedrate

034474	Input unit	mm/min	Effective time	User level
Max Feedrate	Input Range	0.1~999999	R	Normal user
	Default value	10000		
Description:	Set the maximum feed rate of the machine tool. It is used to limit the maximum speed of G01, G02, G03 interpolation movement. When the program F value is greater than this parameter, it will be used as the actual feed speed.			
Attention:	The actual feed speed is also affected by the maximum speed of each motor.			

(5) Feed Acc

034475	Input unit	g	Effective time	User level
Feed Acc	Input Range	0.000001~30	R	Normal user
	Default value	0.1		
Description:	Set the feed acceleration. It is used to limit the acceleration of G01, G02, G03 interpolation motion. When this value is set larger, the machining efficiency will be higher, but the vibration of the machine tool will also increase.			
Attention:				

(6) Feed Tolerance

034463	Input unit	mm	Effective time	User level
Feed Tolerancer	Input Range	0 ~1000	R	Normal user
	Default value	0.003		
Description:	Set the allowable error of G01, G02, G03 interpolation path. This error refers to the allowable error at the corner. The smaller this parameter is, the higher the machining shape accuracy will be, but the machining efficiency will be reduced.			
Attention:				

(7) Feed Ts

034462	Input unit	ms	Effective time	User level
Feed Ts	Input Range	2 ~2000	R	Normal user
	Default value	40		

Description:	Set the acceleration time during G01, G02, G03 interpolation motion. This parameter value and [#*34475 Feed acceleration] determine the allowable maximum jerk.
Attention:	

(8) Rapid At Gacc

034465	Input unit	no	Effective time	User level
Rapid At Gacc	Input Range	ON; OFF.	R	Normal user
	Default value	OFF		
Description:	When this setting is ON, GACC performs interpolation operation on G00. When this setting is OFF, GACC does not optimize G00.			
Attention:	ON/OFF is switched by the SPACE key.			

(9) Smt Invalidate

032964	Input unit	no	Effective time	User level
Smt Invalidate	Input Range	ON; OFF.	R	Normal user
	Default value	OFF		
Description:	When this parameter is ON, the S(spindle speed function), M(auxiliary function), and T(tool selection function) commands are invalid. It is used for idling machining before formal processing, saving the time of modifying the program.			
Attention:	ON/OFF is switched by the SPACE key.			

(10) Dryrun Activate

032966	Input unit	no	Effective time	User level
Dryrun Activate	Input Range	ON; OFF.	R	Normal user
	Default value	OFF		
Description:	Through the dry machining method, the inspection of the NC program can be completed quickly. ON: The cutting feed moves according to the set [#*32963Dry machining speed] . OFF: The speed of G01, G02 and G03 is determined by the feedrate F.			
Attention:	ON/OFF is switched by the SPACE key.			

(11) Dryrun Feedrate

032963	Input unit	mm/min	Effective time	User level
Dryrun Feedrate	Input Range	10~100000	R	Normal user

	Default value	10000		
Description:	Set the feed rate for dry machining. When dry machining is valid, the movement speed of cutting feed (G01, G02, G03) is determined by this parameter.			
Attention:				

(12) Dryrun Z Pos.

032960	Input unit	mm	Effective time	User level
	Input Range	0~999999	R	Normal user
Dryrun Z Pos.	Default value	0		
Description:	Set the default Z-direction tool lift during dry machining. After setting the tool lift height, the system will automatically lift the tool during dry machining, so there is no need to set additional coordinate offsets.			
Attention:				

(13) Decimal Point Func.

032955	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Normal user
Decimal Point Func.	Default value	OFF		
Description:	When entering data such as distance, angle, and time in an NC program, if there is no decimal point, set whether to automatically add a decimal point. Refer to [#*32965 Decimal point input unit] to set number of digits.			
Attention:	ON/OFF is switched by the SPACE key.			

The decimal point function is effective when this setting is ON. The representation of the X-axis when G92X100 is implemented is shown below:

	Number of decimal places: 3	Number of decimal places: 4	Number of decimal places: 5	Number of decimal places: 6
X100	0.100	0.0100	0.00100	0.000100
X100.	100.0	100.0	100.0	100.0

When this setting is OFF, the X-axis representation when G92X100 is implemented is shown below:

	Number of decimal places: 3	Number of decimal places: 4	Number of decimal places: 5	Number of decimal places: 6
X100	100.0	100.0	100.0	100.0
X100.	100.0	100.0	100.0	100.0

(14) Decimal Point Inputunit

032965	Input unit	no	Effective time	User level
Decimal Point Inputunit	Input Range	3 to 6	R	Normal user
	Default value	3		
Description:	See the description of [#*32955 Decimal point automatic judgment]. The set value indicates the number of decimal places.			
Attention:				

(15) Checking Interference

034403	Input unit	no	Effective time	User level
Checking Interference	Input Range	ON; OFF.	R	Normal user
	Default value	ON		
Description:	Set whether to perform interference check on the tool path obtained by radius compensation. ON: Interference check is performed. OFF: Interference check is not performed.			
Attention:				

(16) Workcount Auto.

030006	Input unit	no	Effective time	User level
Workcount Auto.	Input Range	ON; OFF.	R	Normal user
	Default value	ON		
Description:	Whether to add the value set in [#*30032 Accumulated number of parts] to the "current number of parts" when machining is finished. ON: Accumulate; OFF: Do not accumulate.			
Attention:				

(17) Workcount Num.

030032	Input unit	no	Effective time	User level
Workcount Num.	Input Range	1~99	R	Normal user
	Default value	1		
Description:	Refer to the description of [#30006 Automatically count the number of processed parts], and set the accumulated number each time.			
Attention:				

(18) Parts Number Manage

030055	Input unit	no	Effective time	User level
Parts Number Manage	Input Range	ON; OFF.	R	Normal user
	Default value	ON		
Description:	When the "current number of parts" exceeds the "required number of parts", the system will report an error, and it is not allowed to continue processing. Until the current number of parts is cleared, or this parameter is set to OFF.			
Attention:				

(19) Gacc Defaultly Mode1

030030	Input unit	no	Effective time	User level
Gacc Defaultly Mode1	Input Range	ON; OFF.	R	Normal user
	Default value	ON		
Description:	Set the operation mode of GACC (high-speed, high-accuracy contour control). ON: Indicates GACC1; OFF: Indicates GACC2. When the system is started or reset, the GACC function returns to the default mode set by this parameter.			
Attention:	ON/OFF is switched by the SPACE key.			

(20) Gacc0 Corners Control

041139	Input unit	no	Effective time	User level
Gacc0 Corners Control	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	When GACC0, whether to superimpose the sub-axis speed of the corner. ON: superimposed to improve dry running efficiency; OFF: not superimposed.			
Attention:	ON/OFF is switched by the SPACE key.			

(21) Gacc0 Fast Crners Length

041187	Input unit	mm	Effective time	User level
Gacc0 Fast Crners Length	Input Range	0~99	R	Machine Tool Plant Users
	Default value	10		
Description:	Set the corner length of GACC0 corner stacking, the longer the length, the greater the path deviation caused by stacking, which may cause interference.			
Attention:				

(22) Fast Move Constant Power

041138	Input unit	mm	Effective time	User level
Fast Move Constant Power	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	It is used to control whether the constant power acceleration and deceleration method is used to plan the speed of G00 in GACC0; 0 means not using method; 1 means using the method.			
Attention:	ON/OFF is switched by the SPACE key.			

(23) Gacc Fairing Mode-3

034568	Input unit	no	Effective time	User level
Gacc Fairing Mode-3	Input Range	0~10	R	Machine Tool Plant Users
	Default value	0		
Description:	Select GACC path smoothing mode; 0 and 1 are valid in GACC1, 7 and 9 are valid in GACC2; 0 is GACC1 smoothing mode, 1 is GACC3 smoothing mode, 7 is GACC7 smoothing mode, 9 is GACC mobile phone frame special smoothing model.			
Attention:				

(24) Rapid Feedrate

034466	Input unit	mm/min	Effective time	User level
Rapid Feedrate	Input Range	0.1 ~99999999	R	Machine Tool Plant Users
	Default value	15000		
Description:	This parameter specifies the movement speed of G00 interpolation movement in GACC1 or GACC2 mode. When G05P0 closes all GACC modes, this parameter has no effect. G00 moves according to the maximum speed of each axis.			
Attention:				

(25) Rapid Acc

034469	Input unit	g	Effective time	User level
Rapid Acc	Input Range	0.000001 ~30	R	Machine Tool Plant

	Default value	0.2		Users
Description:	This parameter specifies the movement acceleration of G00 interpolation movement in GACC1 or GACC2 mode. When G05P0 closes all GACC modes, this parameter has no effect. G00 moves according to the maximum acceleration of each axis.			
Attention:				

(26) Rapid Tolerance

034467	Input unit	mm	Effective time	User level
	Input Range	0 ~1000		
	Default value	0.2		
Rapid Tolerance			R	Machine Tool Plant Users
Description:	When GACC supports G00 interpolation mode is ON, set the allowable error of G00 interpolation path. This error generally refers to the allowable error at the corner.			
Attention:				

(27) Rapid Ts

034468	Input unit	ms	Effective time	User level
	Input Range	2~2000		
	Default value	60		
Rapid Ts			R	Machine Tool Plant Users
Description:	Set the acceleration time of G00 interpolation motion. The smaller the setting is, the higher the jerk can be obtained, the faster the acceleration can be obtained, and the higher the machining efficiency is.			
Attention:				

(28) Small Block Tolerance

034480	Input unit	mm	Effective time	User level
	Input Range	0~1		
	Default value	0.001		
Small Block Tolerance			R	Machine Tool Plant Users
Description:	Sets the maximum allowable error for microblock connection processing. The larger the setting value of this parameter is, the higher the machining efficiency will be, but the machining contour shape accuracy will be reduced.			
Attention:				

(29) Block Fairing Tolerance

034486	Input unit	mm	Effective time	User level
	Input Range	0~1	R	Machine Tool Plant

Block Fairing Tolerance	Default value	0.002		Users
Description:	Set the error tolerance value for path smoothing. The larger the set value, the smoother the processing and the higher the efficiency, but the accuracy of the contour shape will be reduced.			
Attention:				

(30) Scaling Prog Mode

032962	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Plant Users
Scaling Prog Mode	Default value	OFF		
Description:	Set whether to scale the entire path when using the scaling command (G51) or mirroring command (G51.1). OFF: Only the specified axis is scaled. ON: Even if only one axis is specified, the entire path is scaled at the same time.			
Attention:	ON/OFF is switched by the SPACE key.			

(31) Blend Inhibit

040192	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Plant Users
Blend Inhibit	Default value	OFF		
Description:	For internal use, please do not modify this parameter.			
Attention:				

(32) Timebase Slew Rate

040194	Input unit	no	Effective time	User level
	Input Range	0.001~ 5	E	Machine Tool Plant Users
Timebase Slew Rate	Default value	0.2		
Description:	Set the change rate of the magnification. That is, when the magnification changes, the percentage change of the magnification adjusted in each servo cycle. The larger the setting value, the higher the responsiveness of the magnification change.			
Attention:				

(33) Ratio Auto Adjustement

030066	Input unit	no	Effective time	User level
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	Input Range	ON; OFF.	E	Machine Tool Plant Users
Ratio Auto Adjustmement	Default value	ON		
Description:	When this function is turned on, the magnification will be automatically adjusted for the NC that is too late for calculation to avoid RT errors.			
Attention:				

(34) Feedhold Dec Rate

040195	Input unit	no	Effective time	User level
Feedhold Dec Rate	Input Range	0.001~5	E	Machine Tool Plant Users
	Default value	0.2		
Description:	Set the deceleration rate when the coordinate system is paused. The larger the setting value is, the shorter the pause and stop distance will be; however, if the value is too large, a mechanical impact sound will be produced.			
Attention:				

(35) Chamferring/Corner R

030036	Input unit	no	Effective time	User level
Chamferring/Corner R	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	A block for chamfering or corner R can be automatically inserted between linear interpolation (G01) of a single axis and linear interpolation (G01) of a single axis perpendicular to that axis. Generally used in lathes.			
Attention:	ON/OFF is switched by the SPACE key.			

(36) Direct Drawing Dimension

30049	Input unit	no	Effective time	User level
Direct Drawing Dimension	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	When the chamfering/corner R function is enabled, the straight line angle, chamfering value, and corner R value written on the machining drawing can be used for programming.			
Attention:	ON/OFF is switched by the SPACE key.			

(37) Supplement A Command

030050 Supplement A Command	Input unit	no	Effective time R	User level
	Input Range	ON; OFF.		Machine Tool Plant Users
	Default value	OFF		
Description:	The setting can specify the angle by the supplementary angle, and it is valid for [#*30049 Drawing size direct input].			
Attention:	ON/OFF is switched by the SPACE key.			

(38) Long compensation automatic tool start

034417 Long compensation automatic tool start	Input unit	no	Effective time R	User level
	Input Range	ON; OFF.		Machine Tool Plant Users
	Default value	ON		
Description:	Long compensation is automatically canceled when instructions such as G28, G29, and G53 are encountered during program execution. When this setting is ON, long compensation is automatically restored when an axis movement command is executed immediately afterward. When this setting is OFF, long compensation is canceled until long compensation is activated again using the G43 and G44 commands.			
Attention:	ON/OFF is switched by the SPACE key.			

(39) R.Comp Blocks

034400 R.Comp Blocks	Input unit	no	Effective time R	User level
	Input Range	15~1 50		Machine Tool Plant Users
	Default value	15		
Description:	Sets the minimum number of move blocks that need to be pre-read when the radius compensation calculation can calculate the first move block.			
Attention:				

(40) R.Comp No-Moving Blocks

034401 R.Comp No-Moving Blocks	Input unit	no	Effective time R	User level
	Input Range	0~100		Machine Tool Plant Users
	Default value	100		
Description:	Set the maximum number of non-moving blocks allowed to be inserted in the moving block during radius compensation calculation. When the non-moving block exceeds this setting, the system alarms.			

Attention:	
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(41) Avoid Turning Mode

034404	Input unit	no	Effective time	User level
	Input Range	0~2		
Avoid Turning Mode	Default value	0	R	Machine Tool Plant Users
	Description:	0: Safe avoidance mode; 1: Normal avoidance mode; 2: Forced avoidance mode.		
Attention:				

(42) R.Comp Chamferring Type

034406	Input unit	no	Effective time	User level
	Input Range	0; 1		
R.Comp Chamferring Type	Default value	0	R	Machine Tool Plant Users
	Description:	Sets the mode for radius compensation corners. 1: In radius compensation, arc transition is adopted when encountering a corner. 0: In radius compensation, right-angle transition is adopted when encountering a corner.		
Attention:				

(43) Turret Mirror Dist

032974	Input unit	mm	Effective time	User level
	Input Range	-999999.999 ~ 999999.999		
Turret Mirror Dist	Default value	0	R	Machine Tool Plant Users
	Description:	Set the distance between turrets in the mirror image of facing turrets. For the specific method, please refer to Lynuc CNC device programming manual [Tool post mirror image].		
Attention:				

(44) Turret Mirror Axis

032975	Input unit	no	Effective time	User level
	Input Range	0 to 2		
Turret Mirror Axis	Default value	0	R	Machine Tool Plant Users
	Description:	Set the mirror axis of the opposing turret. 0 is X; 1 is Y; 2 is Z.		
Attention:				

(45) Gmt Sub-Call

032957	Input unit	no	Effective time	User level
Gmt Sub-Call	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	When it is set to ON, the function of directly calling subroutines by G, M, and T commands is valid.			
Attention:	ON/OFF is switched by the SPACE key.			

(46) G83/G87 Clearance

034601	Input unit	mm	Effective time	User level
G83/G87 Clearance	Input Range	0 ~ 999.999	E	Normal user
	Default value	0.5		
Description:	In G83/G87 woodpecker punching cycle, the amount of Clearance for each cutting.			
Attention:				

(47) G84/G88 Clearance

034605	Input unit	mm	Effective time	User level
G84/G88 Clearance	Input Range	0 ~ 999.999	E	Normal user
	Default value	0.5		
Description:	In G84/G88 deep hole tapping cycle, the amount of space left for each cutting.			
Attention:				

(48) G73 Clearance

034600	Input unit	mm	Effective time	User level
G73 Clearance	Input Range	0 ~ 999.999	E	Normal user
	Default value	0.5		
Description:	In G73 punching cycle, the amount of space left when cutting the knife each time.			
Attention:				

(49) G76/G87 Clearance

034602	Input unit	mm	Effective time	User level
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	Input Range	0 ~ 999.999	R	Normal user
G76/G87 Clearance	Default value	0.5		
Description:	In G76/G87 boring cycle, the avoidance distance between lowering the tool and raising the tool.			
Attention:				

(50) G76/G87 Q Direction

034603	Input unit	no	Effective time	User level
G76/G87 Q Direction	Input Range	0 ~ 3	R	Normal user
	Default value	0		
Description:	During G76/G87 boring cycle, the avoidance direction when the tool is lowered and lifted. 0: X+, 1: X-, 2: Y+, 3: Y-.			
Attention:				

(51) G84 Mode

034604	Input unit	no	Effective time	User level
G84 Mode	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	When G84 deep hole tapping, the action of each time the knife is retracted, OFF: only the G84 gap is retracted; ON: back to point R to ensure chip removal in the deep hole.			
Attention:	ON/OFF is switched by the SPACE key.			

(52) G83/G87 Mode

034606	Input unit	no	Effective time	User level
G83/G87 Mode	Input Range	ON; OFF.	E	Normal user
	Default value	ON		
Description:	When drilling with G83/G87, each time the knife is lifted and retracted, OFF: only retract the G83/G87 space; ON: retract to point R to ensure deep hole chip removal.			
Attention:	ON/OFF is switched by the SPACE key.			

(53) S.B. Can Cycle

034609	Input unit	no	Effective time	User level
S.B. Can Cycle	Input Range	ON; OFF.	E	Normal user

	Default value	OFF		
Description:	ON: Enable single-step mode, you can use single-step to perform single-step punching and inspection, which will reduce the efficiency of the punching cycle; OFF: Disable single-step mode, it is recommended to set OFF during formal production.			
Attention:	ON/OFF is switched by the SPACE key.			

(54) Enable Fine Tapping

034610	Input unit	no	Effective time	User level
Enable Fine Tapping	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	ON: Enable system efficient tapping mode; OFF: User-defined tapping mode.			
Attention:	ON/OFF is switched by the SPACE key.			

(55) M00 Stop Spindle

034611	Input unit	no	Effective time	User level
M00 Stop Spindle	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	When M00 is set, the system automatically stops the spindle, and resumes the spindle rotation when processing continues. ON: stop the spindle; OFF: do not stop.			
Attention:	ON/OFF is switched by the SPACE key.			

(56) G18/G19 Tapping Dir

034613	Input unit	no	Effective time	User level
G18/G19 Tapping Dir	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	OFF: In the same direction as the G17 plane; ON: In the opposite direction to the G17 plane.			
Attention:				

(57) Chamfering Angle

034608	Input unit	degree	Effective time	User level
Chamfering Angle	Input Range	30~70	E	Normal user
	Default	45		

	value			
Description:	The chamfering angle of the threading retraction action.			
Attention:				

(58) Chamfering Length

034607	Input unit	Pitch/10	Effective time	User level
Chamfering Length	Input Range	0~99	E	Normal user
	Default value	1		
Description:	The chamfering length of the thread retracting action.			
Attention:				

(59) Hw.Int Return Velocity

034626	Input unit	mm/min	Effective time	User level
Hw.Int Return Velocity	Input Range	0.0~9999.9	R	Machine Tool Plant Users
	Default value	4000		
Description:	After the handwheel is interrupted, when continuing processing, it will automatically return to the speed at the position before the interruption.			
Attention:				

(60) Hw.Int Auto Return

034625	Input unit	no	Effective time	User level
Hw.Int Auto Return	Input Range	ON; OFF	R	Machine Tool Plant Users
	Default value	OFF		
Description:	After the handwheel is interrupted, it is set whether to automatically return to the position before the handwheel is interrupted when processing is continued. ON: automatic return; OFF: no return.			
Attention:	ON/OFF is switched by the SPACE key.			

(61) Hw.Int Directly Return

034627	Input unit	no	Effective time	User level
Hw.Int Directly Return	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	When the handwheel returns automatically, ON: return to the position before the interruption by linear motion; OFF: return to the position before the handwheel interruption along the movement path			

	of the handwheel interruption.
Attention:	ON/OFF is switched by the SPACE key.

(62) Initial Feed

034101	Input unit	no	Effective time	User level
Initial Feed	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	Set whether to use the G01 command or the G00 command as the default feed when the power is turned on. ON: The default feed is G01 command; OFF: The default feed is G00 command.			
Attention:	ON/OFF is switched by the SPACE key.			

(63) G Sub-Call Offset

032950	Input unit	no	Effective time	User level
G Sub-Call Offset	Input Range	0~9990	R	Machine Tool Plant Users
	Default value	9010		
Description:	The program number base address of the fixed subprogram is used to call the subprogram by G command. Subprogram naming format: OXX.NC, where XX is 10 consecutive numbers starting with the parameter value as the base address [#32920]~[#32929].			
Attention:	This parameter is valid when the setting of "032957 [GMT Shortcut Recall Valid]" is ON.			

(64) M G65-Call Offset

032951	Input unit	no	Effective time	User level
M G65-Call Offset	Input Range	0~9990	R	Machine Tool Plant Users
	Default value	9020		
Description:	The program number base address of the fixed subprogram is used to call the subprogram by M command. Subprogram naming format: OXXXX.NC, where XXXX is 10 consecutive numbers starting with the parameter value as the base address [#32930]~[#32939].			
Attention:	This parameter is valid when the setting of "032957 [GMT Shortcut Recall Valid]" is ON.			

(65) M M98-Call Offset

032952	Input unit	no	Effective time	User level
M M98-Call Offset	Input Range	0~9990	R	Machine Tool Plant Users
	Default	9001		

	value			
Description:	The program number base address of the fixed subprogram is used to call the subprogram by M command. Subroutine naming format: OXXXX.NC. XXXX is 10 consecutive numbers starting with the parameter value as the base address [#32940]~[#32949].			
Attention:	This parameter is valid when the setting of "032957 [GMT Shortcut Recall Valid]" is ON.			

(66) T G65-Call Offset

032954	Input unit	no	Effective time	User level
T G65-Call Offset	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	9000		
Description:	The program number base address of the fixed subprogram is used to call the subprogram function by the T instruction. Subprogram naming format: OXXXX.NC, where XXXX is the number specified by this parameter.			
Attention:	This parameter is valid when the setting of "032957 [GMT Shortcut Call Valid]" is ON and the setting of "032953 [T Instruction Direct Call Subroutine]" is ON.			

(67) No.1 ~10 G Code

032920~032929	Input unit	no	Effective time	User level
No.1 ~10 G Code	Input Range	0~99.99	R	Machine Tool Plant Users
	Default value	0		
Description:	Directly call the G command number of the subprogram function, the calling method is similar to the macro call of G65, and parameters can be passed. See [#*32950G command subprogram number offset].			
Attention:				

(68) No.1 ~10 M Code(G65)

032930~032939	Input unit	no	Effective time	User level
No.1 ~10 M Code(G65)	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	Directly call the M command number of the subroutine function, the calling method is similar to the macro call of G65. Parameters can be passed. See [#*32951M command subprogram number offset (G65)] .			
Attention:				

(69) No.1 ~10 M Code(M98)

032940~032949	Input unit	no	Effective time	User level
No.1 ~10 M Code(M98)	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	The M command number to directly call the subprogram function, the calling method is similar to the subprogram call of M98, and no parameters can be passed. See [#*32952M command subprogram number offset (M98)] .			
Attention:				

(70) T Activate (G65)

032953	Input unit	no	Effective time	User level
T Activate (G65)	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	When the subroutine called by the T command is valid, the T command will not be used as the command to specify the tool number at the same time. The fixed subprogram number called by the T command is specified by [#*32954T] .			
Attention:	ON/OFF is switched by the SPACE key.			

(71) M Call Lower

032968	Input unit	no	Effective time	User level
M Call Lower	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Call (Multiple Designation) Using M Code].			
Attention:				

(72) M Call Upper

032969	Input unit	no	Effective time	User level
M Call Upper	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Call (Multiple Designation) Using M Code].			
Attention:				

(73) M Call Prog.No

032970	Input unit	no	Effective time	User level
M Call Prog.No	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Call (Multiple Designation) Using M Code].			
Attention:				

(74) G Call Code Begin

032971	Input unit	no	Effective time	User level
G Call Code Begin	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Calling with G Code (Multiple Designations)].			
Attention:				

(75) G Call Num

032972	Input unit	no	Effective time	User level
G Call Num	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Calling with G Code (Multiple Designations)].			
Attention:				

(76) G Call Prog.Begin

032973	Input unit	no	Effective time	User level
G Call Prog.Begin	Input Range	0~9999	R	Machine Tool Plant Users
	Default value	0		
Description:	For the specific method, please refer to the Lynuc CNC Device Programming Manual [Macro Calling with G Code (Multiple Designations)].			
Attention:				

(77) M-Completing Signal

030048	Input unit	no	Effective time	User level
M-Completing Signal	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	ON: The M command is waiting to be valid, and the next NC interpretation is performed only after the PLC returns the end signal of the M command. OFF: Without waiting, execute the M command function and read the next NC.			
Attention:	ON/OFF is switched by the SPACE key.			

(78) Reset Axes Control

030053	Input unit	no	Effective time	User level
Reset Axes Control	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	ON: At reset or after executing M30, restore each axis to the state in the axis setting item; OFF: No restoration action is performed. Axis control modes include: synchronous control, inclined axis control, hybrid control, etc.			
Attention:	ON/OFF is switched by the SPACE key.			

(79) G81.1 Feed Ts

034556	Input unit	ms	Effective time	User level
G81.1 Feed Ts	Input Range	2~99	R	Machine Tool Plant Users
	Default value	5		
Description:	Set the minimum acceleration time of high-speed punching G01.			
Attention:				

(80) G81.1 Rapid Ts

034557	Input unit	ms	Effective time	User level
G81.1 Rapid Ts	Input Range	2~99	R	Machine Tool Plant Users
	Default value	20		
Description:	Set the minimum acceleration time of high-speed punching G00.			
Attention:				

(81) Gacc0 Enable

034450	Input unit	no	Effective time	User level
Gacc0 Enable	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	When GACC1, GACC2, and GACC5 modes are all disabled, set to ON to enable the SI GACC0 module.			
Attention:	ON/OFF is switched by the SPACE key.			

(82) Gacc0 Feed Ts

034489	Input unit	ms	Effective time	User level
Gacc0 Feed Ts	Input Range	2~1000	R	Machine Tool Plant Users
	Default value	20		
Description:	Set the GACC0 feed acceleration time.			
Attention:				

(83) Gacc0 G00/G01 Cont.

041143	Input unit	no	Effective time	User level
Gacc0 G00/G01 Cont.	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Whether to perform continuous speed planning when G00 and G01 are connected.			
Attention:	ON/OFF is switched by the SPACE key.			

(84) Gacc0 Min Length

034571	Input unit	mm	Effective time	User level
Gacc0 Min Length	Input Range	0~50	R	Machine Tool Plant Users
	Default value	2		
Description:	The short-distance G00 movement segment in continuous processing is combined and optimized with G01 action to improve processing efficiency. A G00 movement segment smaller than the set value is judged as a short distance.			
Attention:				

(85) Rapid Acc

034519	Input unit	g	Effective time	User level
Rapid Acc	Input Range	0.000001~30	R	Machine Tool Plant Users
	Default value	1.5		
Description:	Set GACC0 maximum acceleration.			
Attention:				

(86) Jerk Enable

040052	Input unit	no	Effective time	User level
Jerk Enable	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	When the Jerk function is enabled, the GACC0 TA TS time is automatically adjusted within the system.			
Attention:	ON/OFF is switched by the SPACE key.			

(87) Max Overlay Time

034464	Input unit	ms	Effective time	User level
Max Overlay Time	Input Range	10~10000	R	Machine Tool Plant Users
	Default value	100		
Description:	The maximum stacking time of the corner speed stacking processing of GACC1.			
Attention:				

(88) Max Overlay Angle

034470	Input unit	degree	Effective time	User level
Max Overlay Angle	Input Range	110~165	R	Machine Tool Plant Users
	Default value	165		
Description:	This parameter is used to judge whether speed superposition processing is required at the corner. Only when the B-spline curve fitting process is not performed at the corner.			
Attention:				

(89) Gacc Buffer Size

034476	Input unit	no	Effective time	User level
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	Input Range	10 ~100000	P	Machine Tool Plant Users
Gacc Buffer Size	Default value	8000		
Description:	Set the buffer length of GACC1.			
Attention:				

(90) Gacc Checking Path

034452	Input unit	no	Effective time	User level
Gacc Checking Path	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	Set whether GACC input check is required, the default is ON, and it is required.			
Attention:	ON/OFF is switched by the SPACE key.			

(91) Gacc Segment Time

034473	Input unit	ms	Effective time	User level
Gacc Segment Time	Input Range	0.2~1000	R	Machine Tool Plant Users
	Default value	2.0		
Description:	Sets the time slice length of the GACC instruction. The smaller the value is, the better the control effect is.			
Attention:				

(92) Corner Reference Velocity

034574	Input unit	mm/min	Effective time	User level
Corner Reference Velocity	Input Range	0~1000	R	Machine Tool Plant Users
	Default value	4000		
Description:	It is used to set the arc feedrate of the [corner reference speed specified radius]. When the arc radius is less than the set radius value, the feedrate will be reduced in the same proportion as the set value according to the arc radius.			
Attention:				

(93) Gacc Min B-Spline Angle

034478	Input unit	degree	Effective time	User level
Gacc Min B-Spline	Input Range	-170 ~170	R	Machine Tool Plant Users

Angle	Default value	120		
Description:	It is used to judge whether adjacent polyline segments are suitable for approximation by B-spline curve, that is, the condition of Bspline fitting.			
Attention:				

(94) Gacc Vel. Tseg

034481	Input unit	ms	Effective time	User level
	Input Range	0~40	R	Machine Tool Plant Users
Gacc Vel. Tseg	Default value	2		
Description:	Time slice used for speed planning in GACC1 mode.			
Attention:				

(95) Ts2 Acc. Time

041149	Input unit	ms	Effective time	User level
	Input Range	0 ~1000	R	Machine Tool Plant Users
Ts2 Acc. Time	Default value	5		
Description:	For the first acceleration time of the asymmetric acceleration curve. this parameter the acceleration efficiency and the responsiveness of starting can be improved, and the stability of positioning and stopping will not be affected.			
Attention:				

(96) Block Tolerance

030002	Input unit	mm	Effective time	User level
	Input Range	0.000001~0.001	R	LYNUC users
Block Tolerance	Default value	0.000001		
Description:	Defines the minimum interpolation precision within the system. If it is less than the block length of this parameter, no command will be output to the servo. This function does not generate accumulated errors and will not affect the final machining accuracy.			
Attention:				

(97) Splitting Arc

034453	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Builders

Splitting Arc				Users
	Default value	ON		
Description:	Automatically disassemble the arc in the NC command into small line segments to facilitate the path fitting processing of GACC and improve the processing efficiency of GACC for arc programming NC.			
Attention:	ON/OFF is switched by the SPACE key.			

(98) G5P0 Load Default Value

034459	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Builders Users
G5P0 Load Default Value	Default value	OFF		
Description:	When G5P0, it will automatically restore to the system default GACC setting parameters.			
Attention:	ON/OFF is switched by the SPACE key.			

(99) Debug Output

004182	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	LYNUC users
Debug Output	Default value	OFF		
Description:	This file is used to output the interpretation result file of the NC program for debugging. By default, the interpretation result file is not output.			
Attention:	ON/OFF is switched by the SPACE key.			

(100) M30 Return

032956	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	LYNUC users
M30 Return	Default value	OFF		
Description:	ON: M30 can be used at the end of the subprogram. When M30 is executed, it will jump back to the previous subprogram or main program, and continue processing from the calling position of the subprogram. OFF: If the subprogram is ended with M30, the entire machining program will be ended.			
Attention:	ON/OFF. is switched by the SPACE key.			

(101) Deny Invalid Axis

032959	Input unit	no	Effective time	User level
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	Input Range	ON; OFF.	R	Machine Tool Plant Users
Deny Unvalid Axis	Default value	OFF		
Description:	When an invalid axis command appears in the NC program, the system reports an error. ON: report an error; OFF: not report an error.			
Attention:	ON/OFF is switched by the SPACE key.			

(102) S.Cmd Limit

032976	Input unit	no	Effective time	User level
S.Cmd Limit	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	When changing the tool, whether to limit the S command speed according to the maximum tool speed. ON: Automatically reduce the S command speed to the maximum tool speed; OFF: No limit.			
Attention:	ON/OFF is switched by the SPACE key.			

(103) Rotbuf Size

004181	Input unit	no	Effective time	User level
Rotbuf Size	Input Range	1000~10000	P	LYNUC users
	Default value	10000		
Description:	Not currently open.			
Attention:				

(104) Runtime Error Ignore

030029	Input unit	no	Effective time	User level
Runtime Error Ignore	Input Range	ON; OFF.	R	LYNUC users
	Default value	OFF		
Description:	Not currently open.			
Attention:				

(105) Initial Plane

034102	Input unit	no	Effective time	User level
GACC1 B-spline fitting minimum angle	Input Range	17~19	R	Machine Tool Plant Users
	Default value	17		

Description:	Specifies the coordinate system plane to use by default when the power is turned on. Can be specified as G17 (XY plane), G18 (ZX plane), or G19 (YZ plane).
Attention:	

(106) Spindle No.

030035	Input unit	no	Effective time	User level
Spindle No.	Input Range	1~4	R	Machine Tool Plant Users
	Default value	1		
Description:	Specifies the default spindle number for the current channel.			
Attention:				

(107) Initial C Type Startup

034408	Input unit	no	Effective time	User level
Initial C Type Startup	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The system provides B and C types by default, two types of radius compensation start-up processing. For the differences between these two types of start-up, please refer to the Lynuc CNC device programming manual [Tool radius compensation].			
Attention:	ON/OFF is switched by the SPACE key.			

(108) Initial Coord.

034114	Input unit	no	Effective time	User level
Initial Coord.	Input Range	54~59	R	Machine Tool Plant Users
	Default value	54		
Description:	Not currently open.			
Attention:				

(109) G31 P1 Flag

034620	Input unit	no	Effective time	User level
G31 P1 Flag	Input Range	0~0xFFFFFFFF	R	Machine Tool Plant Users
	Default value	0		
Description:	Trigger signal setting of G31.2P1, expressed in hexadecimal. An arbitrary input address, active level, etc. can be specified. For details, please refer to the Lynuc CNC device function manual.			

Attention:	
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(110) G31 P2 Flag

034621	Input unit	no	Effective time	User level
G31 P2 Flag	Input Range	0~0xFFFFFFFF	R	Machine Tool Plant Users
	Default value	0		
Description:	Trigger signal setting of G31.2P2, expressed in hexadecimal. An arbitrary input address, active level, etc. can be specified. For details, please refer to the Lynuc CNC device function manual.			
Attention:				

(111) G31 P3 Flag

034622	Input unit	no	Effective time	User level
G31 P3 Flag	Input Range	0~0xFFFFFFFF	R	Machine Tool Plant Users
	Default value	0		
Description:	Trigger signal setting of G31.2P3, expressed in hexadecimal. An arbitrary input address, active level, etc. can be specified. For details, please refer to the Lynuc CNC device function manual.			
Attention:				

(112) G31 P4 Flag

034623	Input unit	no	Effective time	User level
G31 P4 Flag	Input Range	0~0xFFFFFFFF	R	Machine Tool Plant Users
	Default value	0		
Description:	Trigger signal setting of G31.2P4, expressed in hexadecimal. An arbitrary input address, active level, etc. can be specified. For details, please refer to the Lynuc CNC device function manual.			
Attention:				

(113) W-Vector Is On

034454	Input unit	no	Effective time	User level
W-Vector Is On	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Incremental interpolation along the tool nose vector direction. W is the incremental distance command along the tool nose vector direction, which is suitable for drilling, tapping, positioning, and handwheel movement.			
Attention:	ON/OFF is switched by the SPACE key.			

(114) No1. Rot.Axis Offset

034457	Input unit	degree	Effective time	User level
No1. Rot.Axis Offset	Input Range	-360 ~ 360	R	Machine Tool Plant Users
	Default value	0		
Description:	Used to set the fixed offset that needs to be accumulated for the first rotary axis in a five-axis machine tool. Only acts on the W axis, the handwheel RTCP function.			
Attention:				

(115) No2. Rot.Axis Offset

034458	Input unit	degree	Effective time	User level
No2. Rot.Axis Offset	Input Range	-360 ~ 360	R	Machine Tool Plant Users
	Default value	0		
Description:	Used to set the fixed offset that needs to be accumulated for the second axis in a five-axis machine tool. Only acts on the W axis, the handwheel RTCP function.			
Attention:				

(116) Rtcp Type

041150	Input unit	no	Effective time	User level
Rtcp Type	Input Range	0~3	R	Machine Tool Plant Users
	Default value	0		
Description:	0: Disable RTCP function; 1: Double swing head mode; 2: Double turntable mode; 3: Mixed mode of one swing head and one turntable.			
Attention:				

(117) No1. Standard Axis

041151	Input unit	no	Effective time	User level
No1. Standard Axis	Input Range	1~3	R	Machine Tool Plant Users
	Default value	1		
Description:	1~3 correspond to the three axes of X, Y, and Z, and correspond to the basic axis number around which the first axis rotates. It will cause the spatial coordinates of the origin coordinates of another rotary axis to change in the mechanical coordinate.			
Attention:				

(118) No2. Standard Axis

041152	Input unit	no	Effective time	User level
	Input Range	1~3	R	Machine Tool

No2. Standard Axis	Default value	3		Plant Users
	Description:	1~3 correspond to the three axes of X, Y, and Z, and correspond to the basic axis number around which the second axis rotates. It causes the spatial coordinates of the origin coordinates of the rotating shaft to change in the entire mechanical coordinate.		
Attention:				

(119) Tool Axis

041153	Input unit	no	Effective time	User level
Tool Axis	Input Range	1~3	R	Machine Tool Plant Users
	Default value	3		
Description:				
1~3 correspond to the three axes of X, Y, and Z, and the basic axis number corresponding to the tool direction.				
Attention:				

(120) No1. Rot.Axis X Pos.

041154	Input unit	mm	Effective time	User level
No1. Rot.Axis X Pos.	Input Range	- 9999.9999~9999 .9999	R	Machine Tool Plant Users
	Default value	0		
Description:				
The axis of the first rotating shaft, the X value of the machine coordinate in the machine tool coordinate system. The coordinate value is closely related to the machine tool structure, please do not modify the coordinate value casually.				
Attention:				

(121) No1. Rot.Axis Y Pos.

041155	Input unit	mm	Effective time	User level
No1. Rot.Axis Y Pos.	Input Range	- 9999.9999~9999 .9999	R	Machine Tool Plant Users
	Default value	0		
Description:				
The axis of the first rotation axis, the Y value of the machine coordinate in the machine tool coordinate system. The coordinate value is closely related to the machine tool structure, please do not modify the coordinate value casually.				
Attention:				

(122) No1. Rot.Axis Z Pos.

041156	Input unit	mm	Effective time	User level
	Input Range	-	R	Machine Tool

No1. Rot.Axis Z Pos.		9999.9999~999 9.9999		Plant Users
	Default value	0		
Description:	The axis of the first rotation axis, the machine coordinate Z value in the machine tool coordinate system. The coordinate value is closely related to the machine tool structure, please do not modify the coordinate value casually.			
Attention:				

(123) No2. Rot.Axis X Offset

041157	Input unit	mm	Effective time	User level
No2. Rot.Axis X Offset	Input Range	- 9999.9999~9999 .9999	R	Machine Tool Plant Users
	Default value	0		
Description:	The amount of deviation between the axis of the second rotating shaft and the axis of the first rotating shaft in the X direction. When the two reels are concentric, it can be set to 0.			
Attention:				

(124) No2. Rot.Axis Y Offset

041158	Input unit	mm	Effective time	User level
No2. Rot.Axis Y Offset	Input Range	- 9999.9999~9999 .9999	R	Machine Tool Plant Users
	Default value	0		
Description:	The amount of deviation between the axis of the second rotating shaft and the axis of the first rotating shaft in the Y direction. When the two reels are concentric, it can be set to 0.			
Attention:				

(125) No2. Rot.Axis Z Offset

041159	Input unit	mm	Effective time	User level
No2. Rot.Axis Z Offset	Input Range	- 9999.9999~9999 .9999	R	Machine Tool Plant Users
	Default value	0		
Description:	The amount of deviation between the axis of the second rotating shaft and the axis of the first rotating shaft in the Z direction.			
Attention:				

(126) Len. Of Tool Holder

041184	Input unit	mm	Effective time	User level
	Input	0~999.999	R	Machine Tool

Len. Of Tool Holder	Range			Plant Users
	Default value	0		
Description:	For the swing head structure RTCP control needs to accurately measure the length of the swing arm.			
Attention:				

(127) No1. Rotate Axis

041185	Input unit	no	Effective time	User level
No1. Rotate Axis	Input Range	4~6	R	Machine Tool Plant Users
	Default value	4		
Description:	4~6 correspond to the A, B, and C axes.			
Attention:				

(128) No1. Rotate Axis Is Ccw

041186	Input unit	no	Effective time	User level
No1. Rotate Axis Is Ccw	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The positive direction of rotation of the first axis around its reference axis.			
Attention:	ON/OFF is switched by the SPACE key.			

(129) No1. Rotate Axis Angle X

041130	Input unit	no	Effective time	User level
No1. Rotate Axis Angle X	Input Range	-1~1	R	Machine Tool Plant Users
	Default value	0		
Description:	The vector of the angle between the normal direction of the first rotation axis and the reference axis.			
Attention:				

(130) No1. Rotate Axis Angle Y

041131	Input unit	no	Effective time	User level
No1. Rotate Axis Angle Y	Input Range	-1~1	R	Machine Tool Plant Users
	Default value	0		
Description:	The vector of the angle between the normal direction of the first rotation axis and the reference axis.			
Attention:				

(131) No1. Rotate Axis Angle Z

041132	Input unit	no	Effective time	User level
No1. Rotate Axis Angle Z	Input Range	-1~1	R	Machine Tool Plant Users
	Default value	0		
Description:	The vector of the angle between the normal direction of the first rotation axis and the reference axis.			
Attention:				

(132) No2. Rotate Axis

041188	Input unit	no	Effective time	User level
No2. Rotate Axis	Input Range	4~6	R	Machine Tool Plant Users
	Default value	6		
Description:	4~6 correspond to the A, B, and C axes.			
Attention:				

(133) No2. Rotate Axis Is Ccw

041189	Input unit	no	Effective time	User level
No2. Rotate Axis Is Ccw	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The positive direction of rotation of the second axis around its reference axis.			
Attention:	ON/OFF is switched by the SPACE key.			

(134) No2. Rotate Axis Angle X

041135	Input unit	no	Effective time	User level
No2. Rotate Axis Angle X	Input Range	-1~1	R	Machine Tool Plant Users
	Default value	0		
Description:	The vector of the angle between the normal direction of the second rotation axis and the reference axis.			
Attention:				

(135) No2. Rotate Axis Angle Y

041136	Input unit	no	Effective time	User level
No2. Rotate Axis Angle Y	Input Range	-1~1	R	Machine Tool Plant Users
	Default	0		

	value			
Description:	The vector of the angle between the normal direction of the second rotation axis and the reference axis.			
Attention:				

(136) No2. Rotate Axis Angle Z

041137	Input unit	no	Effective time	User level
No2. Rotate Axis Angle Z	Input Range	-1~1	R	Machine Tool Plant Users
	Default value	0		
Description:	The vector of the angle between the normal direction of the second rotation axis and the reference axis.			
Attention:				

(137) 45 Degree Slope

034572	Input unit	no	Effective time	User level
45 Degree Slope	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Dedicated to the additional declination vector position conversion function required for tilted axes at 45 degrees.			
Attention:	ON/OFF is switched by the SPACE key.			

(138) Startline Rot Axis Mov Split

034573	Input unit	no	Effective time	User level
Startline Rot Axis Mov Split	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The first positioning action of the G43.4 command is to position the rotary axis first, and then move to the tool nose coordinates specified by X, Y, and Z.			
Attention:	ON/OFF is switched by the SPACE key.			

(139) Type Of Tool Nose Position

041192	Input unit	no	Effective time	User level
Type Of Tool Nose Position	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Specifies the type of coordinates to display for system coordinates. 0: axis coordinates; 1: tool nose coordinates. Only valid when RTCP is ON.			

Attention:	ON/OFF is switched by the SPACE key.
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(140) Tool Nose Feedrate

034451	Input unit	no	Effective time	User level
Tool Nose Feedrate	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	F command speed planning is performed according to the actual cutting speed of the tool nose.			
Attention:	ON/OFF is switched by the SPACE key.			

(141) 4Th Axis Rtcp

034455	Input unit	no	Effective time	User level
4Th Axis Rtcp	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Special for four-axis cutting plotter with mixed structure.			
Attention:	ON/OFF is switched by the SPACE key.			

(142) 4Th Axis Offset

034456	Input unit	mm	Effective time	User level
4Th Axis Offset	Input Range	-999.9999 ~ 999.9999	R	Machine Tool Plant Users
	Default value	0		
Description:	The offset compensation amount for the center of rotation.			
Attention:				

(143) Rtcp Tool Comp.

032980	Input unit	mm	Effective time	User level
Rtcp Tool Comp.	Input Range	- 999.9999~999.999	R	Machine Tool Plant Users
	Default value	0		
Description:	In the tool correction screen, there is a dedicated "five-axis measurement" function. For specific usage, please refer to "Five-axis Operation Manual of Lynuc CNC System".			
Attention:				

(144) 1St Acc

034580	Input unit	g	Effective time	User level
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	Input Range	0.000001~30	R	Normal user
1St Acc	Default value	0.3		
Description:	[Edit/Machining Parameters], select the acceleration value of rough machining parameters.			
Attention:				

(145) 1St Tolerance

034581	Input unit	mm	Effective time	User level
1St Tolerance	Input Range	0~1000	R	Normal user
	Default value	0.02		
Description:	[Edit/Machining Parameters], select the allowable error value of rough machining parameters.			
Attention:				

(146) 1St Ts

034582	Input unit	ms	Effective time	User level
1St Ts	Input Range	2~2000	R	Normal user
	Default value	30		
Description:	[Edit/Machining Parameters], select the acceleration time value of rough machining parameters.			
Attention:				

(147) 2Nd Acc

034585	Input unit	g	Effective time	User level
2Nd Acc	Input Range	0.000001~30	R	Normal user
	Default value	0.1		
Description:	[Edit/Machining Parameters], select the acceleration of semi-finishing parameters.			
Attention:				

(148) 2Nd Tolerance

034586	Input unit	mm	Effective time	User level
2Nd Tolerance	Input Range	0~1000	R	Normal user

	Default value	0.01		
Description:	[Edit/Processing Parameters], select the allowable error value of semi-finishing parameters.			
Attention:				

(149) 2Nd Ts

034587	Input unit	ms	Effective time	User level
2Nd Ts	Input Range	2~2000	R	Normal user
	Default value	40		
Description:	[Edit/Machining Parameters], select the acceleration time value of semi-finishing parameters.			
Attention:				

(150) 3Rd Acc

034590	Input unit	g	Effective time	User level
3Rd Acc	Input Range	0.000001~30	R	Normal user
	Default value	0.05		
Description:	[Edit/Machining Parameters], select the acceleration value of the finishing parameters.			
Attention:				

(151) 3Rd Tolerance

034591	Input unit	mm	Effective time	User level
3Rd Tolerance	Input Range	0~1000	R	Normal user
	Default value	0.005		
Description:	[Edit/Machining Parameters], select the allowable error value of finishing parameters.			
Attention:				

(152) 3Rd Ts

034592	Input unit	ms	Effective time	User level
3Rd Ts	Input Range	2~2000	R	Normal user
	Default value	40		
Description:	[Edit/Machining Parameters], select the acceleration time value of			

	finishing parameters.
Attention:	

(153) 4Th Acc

034595	Input unit	g	Effective time	User level
4Th Acc	Input Range	0.000001~30	R	Normal user
	Default value	0.02		
Description:	[Edit/Machining Parameters], select the acceleration value of super finishing parameters.			
Attention:				

(154) 4Th Tolerance

034596	Input unit	mm	Effective time	User level
4Th Tolerance	Input Range	0~1000	R	Normal user
	Default value	0.003		
Description:	[Edit/Processing Parameters], select the allowable error value of the superfinishing parameters.			
Attention:				

(155) 4Th Ts

034597	Input unit	ms	Effective time	User level
4Th Ts	Input Range	2~2000	R	Normal user
	Default value	40		
Description:	[Edit/Machining Parameters], select the acceleration time value of super finishing parameters.			
Attention:				

(156) Interpolation Filter Time

034483	Input unit	ms	Effective time	User level
Interpolation Filter Time	Input Range	0~100	R	Normal user
	Default value	0		
Description:	It is used to set the filtering time after parameter interpolation. The larger the value is, the smaller the vibration will be, but the path will be deformed to a certain extent, generally set to 16.			
Attention:				

3. Axes

The parameters in each axis are individually parameterized for each axis.

(1) Axis Activate

074100	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		R
Axis Activate	Default value	ON		
Description:	Set whether the axis is valid in the system. Invalid axis, no operations can be performed on it, including: Jog, handwheel, zero return, and NC commands. ON: valid; OFF: invalid.			
Attention:	ON/OFF is switched by the SPACE key.			

(2) Display

074102	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		R
Display	Default value	ON		
Description:	Set whether to display the axis coordinate information on the screen. ON: display; OFF: not display.			
Attention:	ON/OFF is switched by the SPACE key.			

(3) Rotary (Linear/rotary axes)

074103	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		R
Rotary	Default value	OFF		
Description:	Set whether the axis moves linearly or rotationally. ON: Rotary axis; OFF: Linear axis. When it is a rotary axis, the coordinates of the axis will be displayed cyclically with one cycle of [#74147 Rotation cycle offset].			
Attention:	ON/OFF is switched by the SPACE key.			

(4) Diameter (Diameter Programming)

074110	Input unit	no	Effective time	User level
	Input	ON; OFF.		R

Diameter	Range		Plant Users
	Default value	OFF	
Description:	Sets the axis programming method. ON: Diameter programming; OFF: Radius programming. During diameter programming, NC commands and coordinates are displayed in the form of diameter. Only tool radius compensation is still in the form of radius.		
Attention:	ON/OFF is switched by the SPACE key.		

(5) Disable Inch

074109	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Disable Inch	Default value	OFF	Machine Tool Plant Users	
	Description:	Set whether to disable inch conversion for the axis. For the inch system, some axes for rotary axis control can be specified, and inch conversion is not allowed. ON: Conversion is prohibited; OFF: Not prohibited. Valid when [#2096 inch unit] is ON.		
Attention:	ON/OFF is switched by the SPACE key.			

(6) Participate in interpolation speed planning

074104	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Interpolation Activate	Default value	ON	Machine Tool Plant Users	
	Description:	Set whether the axis participates in the interpolation speed planning. ON: participate; OFF: do not participate. The sub-axis speed is determined by the moving distance and F value of all axes involved in the interpolation.		
Attention:	ON/OFF is switched by the SPACE key.			

(7) mirroring allows

074105	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Mirror Activate	Default value	ON	Machine Tool Plant Users	
	Description:	Set whether to support the mirror image (G51.1) function of this axis.		

	ON: supported; OFF: not supported.
Attention:	ON/OFF is switched by the SPACE key.

(8) Zoom Allowed

074106	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		R
Scaling Activate	Default value	ON		
Description:	Set whether to support the scaling (G51) function of this axis. ON: supported; OFF: not supported.			
Attention:	ON/OFF is switched by the SPACE key.			

(9) rotation allowance

074107	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		R
Rotation Activate	Default value	ON		
Description:	Set whether to support the rotation (G68) function of this axis. ON: supported; OFF: not supported.			
Attention:	ON/OFF is switched by the SPACE key.			

(10) Corresponding motor number

074111	Input unit	no	Effective time	User level
	Input Range	0~16		R
Motor No.	Default value	1		
Description:	Set the corresponding motor number for the definition of the coordinate system mapping relationship. For unassigned axes, set the corresponding motor number to 0. The motor number is based on the servo serial number set by the topology structure.			
Attention:				

(11) shaft address

074112	Input unit	no	Effective time	User level
	Input Range	0~499		R
Axis No.	Default value	1		
Description:	Set the channel and address this axis. The ones and tens represent the axis address, and 1~8 represent XYZABCUV. The hundreds digit indicates the channel number. For unassigned axes, set the axis			

	address to 0.
Attention:	

(12) shaft character

074113	Input unit	no	Effective time	User level
Axis Name	Input Range	0~90	R	Machine Tool Plant Users
	Default value	88		
Description:	Set the axis name, expressed in ASCII code.			
Attention:				

X	88	A	65	U	85
Y	89	B	66	V	86
Z	90	C	67	W	87

(13) Axis name subscript

074114	Input unit	no	Effective time	User level
Key Name	Input Range	0~57	R	Machine Tool Plant Users
	Default value	0		
Description:	Set the subscript definition of the axis display, the value range: 0~9, when it is set to 0, no subscript is displayed.			
Attention:	Typically used in multipath systems to distinguish the XYZ axes between paths.			

'1'	49	'4'	52	'7'	55
'2'	50	'5'	53	'8'	56
'3'	51	'6'	54	'9'	57

(14) non-linked shaft

074108	Input unit	no	Effective time	User level
Invalid For Gacc	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The positioning axis is valid. ON: The movement of this axis and other axes along with it are put into GACC0 for processing; OFF: The movement of this axis participates in the linkage planning of GACC2 and GACC5.			

Attention:	ON/OFF is switched by the SPACE key.
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(15) Angular Axis Ctrl

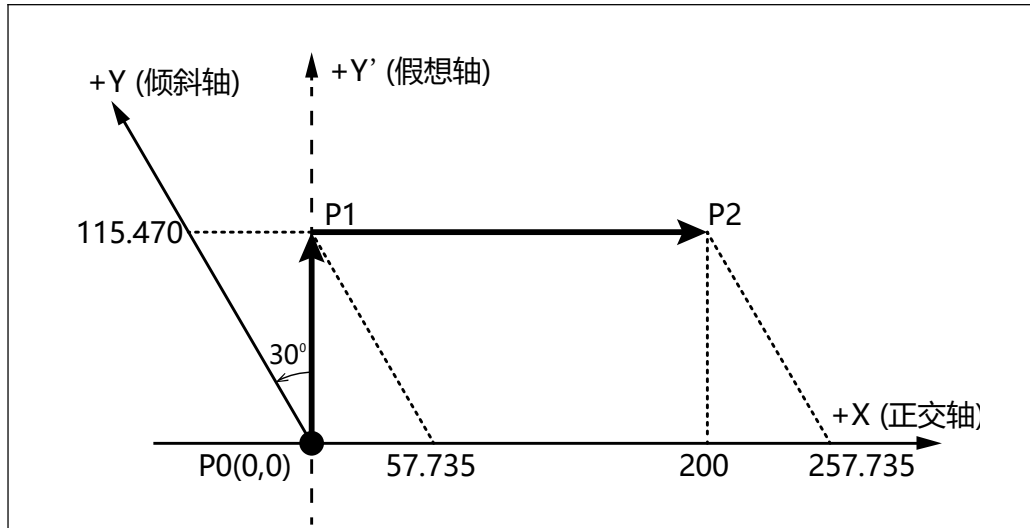
074130	Input unit	no	Effective time	User level
Angular Axis Ctrl	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	Set whether to start the inclined axis control mode. ON: start; OFF: not start.			
Attention:	ON/OFF is switched by the SPACE key.			

(16) Friend Axis Invalidate

074131	Input unit	no	Effective time	User level
Friend Axis Invalidate	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	The two control modes used to define the oblique axis, the usual oblique axis control, are valid for the orthogonal axis control. ON: invalid; OFF: valid. This parameter is valid when [#74*30 Inclined axis control valid] is ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(17) Angular Angle

074132	Input unit	degree	Effective time	User level
Angular Angle	Input Range	-70~70	R	Machine Tool Plant Users
	Default value	0		
Description:	Used to define the angle between this axis and its imaginary axis in the Cartesian coordinate system, counterclockwise is positive. This parameter is valid when [#74*30 Inclined axis control valid] is ON.			
Attention:				



(18) Angular Offset

074133	Input unit	mm	Effective time	User level
Angular Offset	Input Range	-999.999~999.999	R	Machine Tool Plant Users
	Default value	0		
Description:	The offset between the tilt axis and the virtual axis origin is based on the virtual axis machine coordinate system. This parameter is valid when [#74*30 Inclined axis control valid] is ON.			
Attention:				

(19) Friend Axis No.

074134	Input unit	no	Effective time	User level
Friend Axis No.	Input Range	0~16	R	Machine Tool Plant Users
	Default value	0		
Description:	Set the axis number of the orthogonal axis, which corresponds to the axis number in the setting screen. This parameter is valid when [#74*30 Inclined axis control valid] is ON.			
Attention:				

(20) Perpendicularity(Cw)

074135	Input unit	no	Effective time	User level
Perpendicularity(Cw)	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	OFF		
Description:	According to the right-hand rule, from the positive axis of the inclined axis to the positive axis of the orthogonal axis, it is ON in the clockwise; it is OFF in the counterclockwise. Valid when [#74*30 Inclined axis control valid] is ON.			

Attention:	ON/OFF is switched by the SPACE key.
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(21) S Synchronous Ctrl

074140	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Plant Users
Synchronous Ctrl	Default value	OFF		
Description:	Set to start synchronous axis control. ON: start; OFF: not start.			
Attention:	ON/OFF is switched by the SPACE key.			

(22) Master Axis No.

074141	Input unit	no	Effective time	User level
	Input Range	0~16	R	Machine Tool Plant Users
Master Axis No.	Default value	0		
Description:	Set the axis number of the active axis for synchronous control, which corresponds to the axis number in the setting screen. This parameter is valid when [#74*40 Synchronous control valid] is ON.			
Attention:				

(23) Master Pos. Select

074142	Input unit	no	Effective time	User level
	Input Range	0~200	The system reset is effective when the [Save and Effective] button is pressed after changing the setting.	Machine Tool Plant Users
Master Pos. Select	Default value	0		
Description:	Sets the follower address selection for synchronous control. 0: follow the command position; 1: follow the actual position, usually always 0. This parameter is valid when [#74*40 Synchronous control valid] is ON.			
Attention:				

(24) Synchronous Scale

074143	Input unit	no	Effective time	User level
	Input Range	-999.999~ 999.999	R	Machine Tool Plant Users

Synchronous Scale	Default value	0		
	Description:	Set the master-slave axis position ratio, the positive and negative values indicate the direction, and the numerical value indicates the follow-up ratio. This parameter is valid when [#74*40 Synchronous control valid] is ON.		
Attention:				

(25) Flip function works

074145	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Plant Users
Overturn Pos.	Default value	OFF		
Description:	Set whether the rotation axis inversion is valid or not. ON: Valid, the absolute command will locate with the shortest path, the relative command will not run according to the shortest path; OFF: invalid. Valid when [#74*03 Linear axis/rotary axis] is ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(26) Relative coordinate rounding

074146	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	R	Machine Tool Plant Users
Overturn Rel.Pos.	Default value	OFF		
Description:	Set whether the relative coordinates of the rotation axis are displayed circularly. OFF: The relative coordinates of the rotation axis show the distance from the 0 point. This parameter is valid when [#74*03 Linear axis/rotary axis] is ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(27) Rotation Cycle Offset

074147	Input unit	no	Effective time	User level
	Input Range	0~999	R	Machine Tool Plant Users
Rotary Period	Default value	360		
Description:	Set the rotation period offset of the rotary axis, that is, the maximum range of the cycle display. This parameter is valid when [#74*03 Linear axis/rotary axis] is ON.			
Attention:				

4. principal axis (in mechanics, optics, botany etc)

(1) axis effective

007414	Input unit	no	Effective time	User level
Spindle Activate	Input Range	ON; OFF.	R	Machine Tool Plant Users
	Default value	ON		
Description:	Set whether the spindle is valid or not. Invalid spindle, the actual speed of the spindle cannot be obtained. ON: valid; OFF: invalid.			
Attention:	ON/OFF is switched by the SPACE key.			

(2) Minimum spindle speed

007412	Input unit	rpm	Effective time	User level
Min Rpm	Input Range	0~1000000	R	Machine Tool Plant Users
	Default value	100		
Description:	Set the minimum speed of the spindle, and the output of the system will not be lower than this speed.			
Attention:				

(3) Maximum spindle speed

007408	Input unit	rpm	Effective time	User level
Max Rpm	Input Range	0~1000000	R	Machine Tool Plant Users
	Default value	30000		
Description:	Set the maximum speed of the spindle, and the output of the system will not be higher than this speed.			
Attention:				

(4) Default spindle speed

007413	Input unit	rpm	Effective time	User level
Default Rpm	Input Range	0~1000000	R	Normal user
	Default value	1000		
Description:	Set the default speed S value when the system is powered on when			

	the power of the system is turned on.
Attention:	

(5) Corresponding motor number

007402 Corresponding motor number	Input unit	no	Effective time R	User level
	Input Range	0~16		Machine Tool Plant Users
	Default value	6		
Description:	Set the motor number corresponding to the spindle, which is based on the servo serial number on the servo setting screen.			
Attention:				

(6) Maximum spindle output

007415 Max Output	Input unit	no	Effective time R	User level
	Input Range	0~1000000		Machine Tool Plant Users
	Default value	32767		
Description:	Set the maximum output value of the spindle, and the analog value is always set to 32767. In the case of pulse type control, please refer to the actual maximum pulse frequency of the spindle motor for setting.			
Attention:				

(7) Connecting the encoder

007418 Encoder	Input unit	no	Effective time R	User level
	Input Range	ON; OFF.		Machine Tool Plant Users
	Default value	OFF		
Description:	0: Display the commanded speed; 1: The actual speed of the spindle is obtained from the encoder feedback; 2: Others (analog, serial port).			
Attention:	ON/OFF is switched by the SPACE key.			

(8) External spindle load

007419	Input unit	no	Effective time	User level
	Input	ON; OFF.	R	Machine Tool

Meterload Input	Range		Plant Users
	Default value	OFF	
Description:	0: The system automatically reads; 1: 485 or analog acquisition.		
Attention:	ON/OFF is switched by the SPACE key.		

(9) External load rating

007411	Input unit	no	Effective time	User level
	Input Range	0~99999		R
Meterload Base	Default value	0		
Description:	The value returned by the rated load of the inverter is used for the percentage calculation after the external spindle load is read.			
Attention:				

5. systems

(1) Ignore tool changer return to zero

008012	Input unit	no	Effective time	User level
Ignore tool changer return to zero	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	This parameter sets whether the system checks the zero state of the tool magazine, and is valid when the mechanical parameter "008014 [ATC automatic tool change type]" is not zero. Default OFF, that means the tool magazine must be completed in the return to zero action can only be carried out after the tool change operation; usually in the tool magazine state error can not be normal return to zero, it will be set to ON, at this time the system ignores to check the zero state of the tool magazine, the user can be manually return to zero or other operations of the tool magazine, but does not allow to do the tool change, select the tool action, the operation should be careful!			
Attention:	ON/OFF is switched by the SPACE key.			

(2) Ignore system return to zero

002037	Input unit	no	Effective time	User level
Skip Origin	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	Set whether to ignore the request for each axis to return to zero. ON: The zero return is ignored. There is a great danger. OFF: Machining can run after completing the zero return of each axis.			
Attention:	ON/OFF is switched by the SPACE key.			

(3) M30 Poweroff

002008	Input unit	no	Effective time	User level
M30 Poweroff	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	Set whether to automatically shut down when the program runs to M30. ON: When the program executes to M30, the system will automatically shut down; OFF: When it executes to M30, it rewinds and enters the next processing preparation state.			
Attention:	ON/OFF is switched by the SPACE key.			

(4) Restore Coord. Offset

002092	Input unit	no	Effective time	User level
Restore Coord. Offset	Input Range	ON; OFF.	E	Normal user
	Default value	ON		
Description:	Set whether to reset the coordinate system offset to the default value during reset or M30, that is, the workpiece compensation and offset compensation set values in the correction screen. ON: reset; OFF: not reset. Normally always set to ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(5) Restore Tool Comp.

002093	Input unit	no	Effective time	User level
Restore Tool Comp.	Input Range	ON; OFF.	E	Normal user
	Default value	ON		
Description:	Set whether to reset tool compensation when reset or M30. ON: reset; OFF: not reset, tool compensation can only be canceled by G49, and tool shape compensation can only be canceled by T0000. Normally always set to ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(6) Restore Work Coord. Select

002094	Input unit	no	Effective time	User level
Restore Work Coord. Select	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	Set whether to reset the coordinate system selection when reset or M30. ON: reset; OFF: not reset, that is, the coordinate system selected by the user will not be changed during reset or M30. Normally always set to OFF.			
Attention:	ON/OFF is switched by the SPACE key.			

(7) Restore Gcode Mode

002095	Input unit	no	Effective time	User level
Restore Gcode Mode	Input Range	ON; OFF.	E	Normal user
	Default value	ON		
Description:	Set whether to reset the G command modal when resetting. ON: Reset, the mode of the G command needs to be reset to the default mode when the system is reset, including G00/G01, G17/G18, G90/G91, etc. OFF: Do not reset. Normally set to ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(8) Maximum tool speed limit

008018	Input unit	rpm	Effective time	User level
Maximum tool speed limit	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	Setting the maximum tool speed limit allows you to limit the maximum spindle speed based on the current tool number.			
Attention:	ON/OFF is switched by the SPACE key.			

(9) Inch Mode

002096	Input unit	no	Effective time	User level
Inch Mode	Input Range	ON; OFF.	P	Machine Tool Plant Users
	Default value	OFF		
Description:	Set the system length in inches or millimeters. OFF: mm; ON: inches.			
Attention:	ON/OFF is switched by the SPACE key.			

(10) System Accuracy

002030	Input unit	no	Effective time	User level
Precision	Input Range	0~2	P	Machine Tool Plant Users
	Default value	0		
Description:	Set the system precision of the machine tool. 0: 1 micron; 1: 0.1 micron;			

	2: 0.01 micron.
Attention:	

(11) Motion debugging works

007800	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
	Motion debugging works	Default value	OFF	E
Description:	This parameter sets whether the user can edit and debug the Motion program. ON: Editing is allowed; OFF: does not allow the user to debug macro programs. The default setting is OFF, and is only set to ON when the user needs to perform debugging operations such as viewing and modifying the macro program.			
Attention:	ON/OFF is switched by the SPACE key.			

(12) JOG Multi Axis Motion

002040	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
	Jog Multi-Axis	Default value	OFF	E
Description:	Set whether to allow multi-axis JOG at the same time. OFF: Only single-axis Jog is allowed; ON: Multi-axis simultaneous Jog is allowed.			
Attention:	ON/OFF is switched by the SPACE key.			

(13) H.W.Int Clear By Reset

007812	Input unit	no	Effective time	User level
	Input Range	0 ~ 1		
	H.W.Int Clear By Reset	Default value	0	E
Description:	Set whether the reset automatically clears the handwheel intervention amount. ON: Clear; OFF: Not clear.			
Attention:	ON/OFF is switched by the SPACE key.			

(14) Specify lines for program scanning

002158	Input unit	no	Effective time	User level
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Specify lines for program scanning	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	ON: The instruction line scans the program first and continues machining according to the scanned instruction line mode. OFF: The program is not scanned and machining continues directly.			
Attention:	ON/OFF is switched by the SPACE key.			

(15) Ref.Pos For Rtcp B.P.R

002157	Input unit	no	Effective time	User level
	Input Range	0~999999		
Ref.Pos For Rtcp B.P.R	Default value	50	E	Machine Tool Plant Users
	Description:	Specifies the default safe height when specifying lines in five-axis RTCP modal.		
Attention:				

(16) Enable Handwheel Interfer

002054	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Enable Handwheel Interfer	Default value	OFF	E	Machine Tool Plant Users
	Description:	Set whether to allow or not. After pause, you can switch from automatic mode to handwheel mode for handwheel intervention. ON: Allowed; OFF: Not allowed.		
Attention:	ON/OFF is switched by the SPACE key.			

(17) Enable external coordinate system compensation

002045	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Ext. Coord	Default value	OFF	P	Machine Tool Plant Users
	Description:	Set whether to enable external coordinate system compensation. Only one offset compensation coordinate system will remain in the correction screen after it is turned on, and this compensation is valid for all coordinate systems except G959.		
Attention:	ON/OFF is switched by the SPACE key.			

(18) Number of consecutive motor in place detections

040007	Input unit	watchdog cycle	Effective time	User level
In-Pos Counts	Input Range	3~255	E	Machine Tool Plant Users
	Default value	3		
Description:	Set the number of times of continuous detection when the motor is in position, which is used to confirm the in-position status of the motor. The larger the value is, the more stable the in-position detection of the movement is, Usually 3 is taken.			
Attention:				

(19) Number of consecutive motor in place detections

040079	Input unit	watchdog cycle	Effective time	User level
Not In-Pos Max Counts	Input Range	0~10000	E	Machine Tool Plant Users
	Default value	500		
Description:	Set the maximum number of continuous detection of motor not in position; when the speed and acceleration are zero and the following error is greater than the detection range, the watchdog will accumulate the number of not in position.			
Attention:				

(20) RTI cycle

040008	Input unit	servo cycle	Effective time	User level
RTI cycle	Input Range	0~255	E	Machine Tool Plant Users
	Default value	3		
Description:	Set the running period of the real-time task (RTI). Real-time tasks include coarse interpolation calculations. Actual RTI cycle = Servo cycle * (RTI cycle + 1).			
Attention:				

(21) Servo Cycle

040010	Input unit	1/8388608ms	Effective time	User level
Servo Cycle	Input Range	0~8388607	E	Machine Tool Plant Users

	Default value	1677721		
Description:	Used to set the system servo calculation cycle interval. The default is 1677721, and the running servo cycle at this time is 1677721/8388608 milliseconds = 200 microseconds.			
Attention:	The U series should be adjusted according to the "040900 [Maximum Phase Frequency Control]", "040901 [Phase Clock Frequency]", and "040902 [Servo Clock Frequency]" values are adjusted accordingly. Common combinations of adjustments are shown in the table below. The N series controller is set according to "040900 [Maximum phase frequency control]".			

U Series Correspondence Table

#40900 = 4400	#40900 = 3300	#40900 = 2200
#40901 = 0	#40901 = 0	#40901 = 0
#40902 = 1	#40902 = 1	#40902 = 1
#40010 = 1846122	#40010 = 1384749	#40010 = 923376

N Series Correspondence Table

communications cycle	125us	250us	500us	1ms	2ms
#40010	1048576	2097152	4194304	8388608	16777216
#40900	4995	9995	19995	39995	79995

(22) interpolation time slice

040013	Input unit	millisecond	Effective time	User level
Segment Time	Input Range	2~100	E	Machine Tool Plant Users
	Default value	2		
Description:	Set the rough interpolation reference time slice. If the setting value is too large, it may affect accuracy; but if it is too small, it calculation amount will be too large, causing the motion to stop and a run-time error to be reported.			
Attention:				

(23) N3 Connect Ycp03

040075	Input unit	no	Effective time	User level
N3 Connect Ycp03	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	When the N3 external axis card supports YCP-03, it needs to be set to ON.			

Attention:	
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(24) Watchdog Cycle

040046	Input unit	servo cycle	Effective time	User level
	Input Range	0~65535		E
Watchdog Cycle	Default value	9		
Description:	Set the running period of the watchdog program. Actual watchdog cycle = actual servo cycle * (watchdog cycle + 1).			
Attention:				

(25) Motor Compensation Enable

040051	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
Motor Comp. Activate	Default value	OFF		
Description:	Set whether to compensate the motor. If this parameter is set to OFF, the screw pitch compensation, torque compensation and structure compensation functions of each axis will be invalid.			
Attention:	ON/OFF is switched by the SPACE key.			

(26) Yio Filter Time

040060	Input unit	servo cycle	Effective time	User level
	Input Range	0~255		E
Yio Filter Time	Default value	10		
Description:	Used to set the signal filter time of YIO input and output interface card.			
Attention:				

(27) Ycp Filter Time

040061	Input unit	servo cycle	Effective time	User level
	Input Range	0~255		E
Ycp Filter Time				

	Default value	100		
Description:	Used to set the YCP control panel interface card signal filtering time.			
Attention:				

(28) Ycp H.W. Filter Time

040065	Input unit	servo cycle	Effective time	User level
Ycp H.W. Filter Time	Input Range	0~255	E	Machine Tool Plant Users
	Default value	10		
Description:	Used to set the filter time of the handwheel signal on the interface card of the YCP control panel.			
Attention:				

(29) Zero Signal Filter Time

040091	Input unit	nanosecond, ns, 10^{-9} s (PRC)	Effective time	User level
Index Filter Time	Input Range	0~999	E	Machine Tool Plant Users
	Default value	400		
Description:	Used to set the filter time of the encoder Z-phase signal. Combined with Index pulse detection, it can avoid false alarms caused by loss of Z-phase signal during high-speed motion.			
Attention:				

(30) Io Log Ctrl

040093	Input unit	no	Effective time	User level
Io Log Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the IO history to monitor the changes of those input and output signals. A total of 32 bits, the lower 16 bits are used as the input signal control word, and the upper 16 bits are used as the output signal control word.			
Attention:				

(31) Emgstop Ctrl

040070	Input unit	no	Effective time	User level
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Emgstop Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the address and control word of the emergency stop signal. When set to 0, the system will not do the internal braking processing, but complete the braking stop through the driver.			
Attention:				

(32) Power Ctrl

040071	Input unit	no	Effective time	User level
Power Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the address and control word of the POWER OFF signal. Based on this address and control word, it can be detected whether the main power supply of the system is turned off. When set to 0, the system ignores this signal.			
Attention:				

(33) Activate servo stop function

040072	Input unit	no	Effective time	User level
Amp. Broke On	Input Range	ON,OFF	E	Machine Tool Plant Users
	Default value	OFF		
Description:	<ul style="list-style-type: none"> ON: During emergency stop, the servo drive will take over the emergency stop control process. OFF: The CNC system itself sends a stop command to stop the motor at an abnormal stop deceleration and disconnect the main power supply. 			
Attention:	ON/OFF is switched by the SPACE key.			

(34) Abnormal stop deceleration time

040073	Input unit	millisecond	Effective time	User level
Emgstop Dec. Ts	Input Range	2~100	E	Machine Tool Plant Users
	Default value	10		
Description:	Set the deceleration time when the system stops abnormally. The smaller the value of this parameter is, the smaller the moving			

	distance during abnormal stop, but the greater the impact on the machine.
Attention:	

(35) TrigMove stops deceleration rate

040089	Input unit	no	Effective time	User level
TrigMove stops deceleration rate	Input Range	0.01~5	E	Machine Tool Plant Users
	Default value	0.5		
Description:	Used for the stopping action of TrigMove such as G31, G31.2, etc. The larger the setting value, the faster the stopping and the smaller the overshoot, but it may cause mechanical shock.			
Attention:				

(36) static friction without feeling the tape

040098	Input unit	no	Effective time	User level
Static Friction Zone	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	Valid when the static friction compensation of the servo is enabled.			
Attention:				

(37) lag between gaps

040099	Input unit	1/16 pulse	Effective time	User level
Backlash Hysteresis	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	It is set within a certain range of reverse motion, and the backlash will not be compensated. The default value of 0 will compensate very sensitively. Generally, it needs to be set to 16; it can be adjusted according to the actual situation.			
Attention:				

(38) Max Phase Ctrl

040900	Input unit	no	Effective time	User level
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Max Phase Ctrl	Input Range	1000~32767	E	Machine Tool Plant Users
	Default value	4400		
Description:	Set the internal interrupt frequency of the system, which determines the interrupt period of the system. Common settings are as follows, 79995: 2ms; 39995: 1ms; 19995: 500us; 9995: 250us; 4995: 125us.			
Attention:	Please do not modify this setting value arbitrarily. Common servo cycles are shown in the table below:			

#40900	Maximum Phase Period, PWM Frequency
4400	110us, 4.5Khz
3300	83.3us, 6Khz
2200	55us, 9Khz
1665	41.6us, 12Khz

(39) Phase Clock Frequency

040901	Input unit	no	Effective time	User level
	Input Range	0~15		
Phase Clock Frequency	Default value	0	E	Machine Tool Plant Users
	Description:	Set the frequency division of the phase clock frequency, phase cycle = interrupt cycle * ([#40901 Phase clock frequency]+1). This parameter affects the parameters of the current loop. It also affects [#40902 Servo clock frequency].		
Attention:	Do not modify this setting freely.			

(40) Servo clock frequency

040902	Input unit	no	Effective time	User level
	Input Range	0~15		
Servo clock frequency	Default value	0	E	Machine Tool Plant Users
	Description:	Set the frequency division of the servo clock frequency. Servo cycle = phase cycle * ([#40902 Servo clock frequency]+1). The default is 0, that is, the servo cycle is the same as the phase cycle. Please do not modify this setting arbitrarily.		
Attention:	Do not modify this setting value arbitrarily.			

(41) EtherCAT communication cycles

040005	Input unit	no	Effective time	User level
EtherCAT communication cycles	Input Range	0~6	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the EtherCAT communication cycle. Communication cycle = servo cycle * (040005 [EtherCAT communication cycle] + 1)			
Attention:				

(42) Hardware clock control

040903	Input unit	no	Effective time	User level
Hardware clock control	Input Range	0~0XFFF	E	Machine Tool Plant Users
	Default value	0X9D0		
Description:	It is used to set the control and detection frequency of the encoder feedback, pulse output, and analog input/output functions. 9D0 means that the encoder detection frequency is 10Mhz, and the pulse output control frequency is 2.5Mhz.			
Attention:	Do not modify this setting freely.			

(43) PWM Deadband

040904	Input unit	no	Effective time	User level
Pwm Deadtime Ctrl	Input Range	0~255	E	Machine Tool Plant Users
	Default value	7		
Description:	Set the dead band of PWM. This parameter is meaningful only when the motor is performing phase calculations. The setting of this value is related to the selected PWM driver specification. Please set the appropriate parameter value according to the actual driver specification characteristics [PWM minimum dead time].			
Attention:				

(44) PFM pulse width

040905	Input unit	Pulse output control period	Effective time	User level
Pfm Pulse Width Ctrl	Input Range	0~99	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the pulse width of the PFM. When the pulse output control			

	frequency is 2.5Mhz, set 0 to indicate that the pulse width is 0.4 microseconds. For the pulse signal of direction + pulse, set appropriate parameter values. Do not modify the value arbitrarily.
Attention:	Do not modify this setting value arbitrarily.

(45) CNC Auto Phase

007811	Input unit	no	Effective time	User level
Cnc Auto Phase	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	0		
Description:	When the system is powered on and closed-loop, it will perform automatic phase detection on the motor to be detected. It is recommended not to use PLC to perform automatic phase detection when this parameter is ON.			
Attention:	ON/OFF is switched by the SPACE key.			

(46) Maximum amount of movement during AutoPhase

040095	Input unit	1/32count	Effective time	User level
Autophase Max Movepos	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	The maximum distance the motor will move when setting auto-phasing. When the movement amount during automatic phase exceeds the set value, an alarm will be issued. The default value is 0, when the automatic phase is used, there is no limit.			
Attention:				

(47) Max Phase Ctrl5-6

040096	Input unit	phase cycle	Effective time	User level
Max Phase Ctrl5-6	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	Current loop cycle for channels 5-6			
Attention:	This parameter is too small, it will be easy to produce false alarms, usually take 500. the default is 0, that is, no current anti-dumping protection.			

(48) Ratio of Current Dumbness Monitoring

040094	Input unit	no	Effective time	User level
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			time	
Procurrent Check Den	Input Range	2~16	E	Machine Tool Plant Users
	Default value	8		
Description:	For the threshold condition of disconnection detection, only if the current is higher than the setting range, disconnection may occur, and it enters the inspection range of current foolproof. Usually defaults to 8.			
Attention:				

(49) Temporary absolute encoder function

002057	Input unit	no	Effective time	User level
Encoder Position Check	Input Range	ON,OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Set ON to enable the temporary absolute encoder function. This function can provide software limit protection and zero offset detection functions for incremental encoder machine tools before the machine zero position is determined.			
Attention:	ON/OFF is switched by the SPACE key.			

(50) Ignore temporary absolute encoder errors

002053	Input unit	no	Effective time	User level
Ignore Encoder Check	Input Range	ON,OFF.	E	Normal user
	Default value	OFF		
Description:	When the temporary absolute encoder reports an error, it is necessary to ignore the error before performing mechanical adjustment. After the adjustment is completed, the controller needs to be restarted.			
Attention:	ON/OFF is switched by the SPACE key.			

(51) handwheel control word

040990	Input unit	no	Effective time	User level
H.W. Ctrl	Input Range	0~0XFFFF	E	Machine Tool Plant Users
	Default value	0XC053		
Description:	Set the input channel of the handwheel pulse. That is, the pulse accumulation register address of the handwheel pulse generator, U3/U5 system, is always C025. If the front handwheel of YCP is			

	used, set it to C2B5.
Attention:	Do not modify this setting freely.

(52) Handwheel Input Mode

040991	Input unit	no	Effective time	User level
H.W. Mode	Input Range	0~16	E	Machine Tool Plant Users
	Default value	3		
Description:	Set the input mode of the handle pulse. U3/U5 is always 2. If the front handwheel of YCP is used, please set it to 8. Please do not modify this setting arbitrarily.			
Attention:	Do not modify this setting freely.			

(53) Handwheel filter time constant

040992	Input unit	16 servo cycles	Effective time	User level
H.W. Filter Time	Input Range	0~500	E	Machine Tool Plant Users
	Default value	15		
Description:	Set the time constant of the handwheel filter. The larger the number, the smoother the handwheel movement, but the lag phenomenon; the smaller the number, the faster the response, but if it is too small, the acceleration may be too large.			
Attention:				

(54) Handwheel input constant of proportionality

040993	Input unit	no	Effective time	User level
H.W. Scale	Input Range	0~999999.999999	E	Machine Tool Plant Users
	Default value	96		
Description:	Set the input proportional constant of the handwheel pulse counter to adjust the handwheel pulse equivalent. When the resolution of each axis is 1um, please set it to 96; when the resolution of each axis is 0.1um, please set it to 960.			
Attention:				

(55) Second handwheel control word

040995	Input unit	no	Effective time	User level
2Nd H.W. Ctrl	Input Range	0~ 0XFFFF	E	Machine Tool Plant Users

	Default value	0XC073		
Description:	Set the input channel of the second handwheel pulse. Namely, the pulse accumulating register address of the second handwheel pulse generator. The YCP front handwheel interface supports the second handwheel input. Do not modify arbitrarily.			
Attention:	Do not modify this setting freely. If the YCP front handwheel interface is used, the 2nd handwheel function can be used.			

(56) Second handwheel input mode

040996	Input unit	no	Effective time	User level
2Nd H.W. Mode	Input Range	0~16	E	Machine Tool Plant Users
	Default value	3		
Description:	Set the input mode of the second handwheel pulse. See [#40991 Handle input mode].			
Attention:	Do not modify this setting freely.			

(57) Second handwheel filter time constant

040997	Input unit	no	Effective time	User level
2Nd H.W. Filter Time	Input Range	0~500	E	Machine Tool Plant Users
	Default value	15		
Description:	Set the time constant of the second handwheel filter. See [#40992 Handwheel filter time constant].			
Attention:				

(58) Second handwheel input constant of proportionality

040998	Input unit	no	Effective time	User level
2Nd H.W. Scale	Input Range	0~999999.999999	E	Machine Tool Plant Users
	Default value	96		
Description:	Set the second handwheel input proportional constant. See [#40993 Handle input proportional constant].			
Attention:				

(59) Maximum rate constant for position compensation

041051	Input unit	1/16 pulse	Effective time	User level
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Pos. Comp. Rate	Input Range	0~65536	E	Machine Tool Plant Users
	Default value	1		
Description:	The maximum rate of change of motor position compensation. 0 means step compensation, which is easy to compensate too fast and cause machine tool shock. This parameter will affect the speed of position compensation.			
Attention:				

(60) Lio Activate

041060	Input unit	no	Effective time	User level
Lio Activate	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Not currently open.			
Attention:				

(61) Allows multiplexing of brake outputs

041061	Input unit	no	Effective time	User level
Break-On Activate	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Set whether to allow the Brake signal of the multiplexed motor to be used as the general output. ON: Allows multiplexing of brake output, and can control the Brake signal through Y12 of the PLC. When is ON, set the parameter of each servo to ON.			
Attention:	When using a YIO card, multiplexing the brake outputs is generally not required.			

(62) YIO reused as motor IO

041062	Input unit	no	Effective time	User level
Yio-03 Used To Lio	Input Range	ON; OFF	E	Machine Tool Plant Users
	Default value	OFF		
Description:	By enabling this function, the motor IO can be directly connected to the general YIO card. This function needs to be combined with the setting of the motor IO signal address in each servo.			
Attention:	ON/OFF is switched by the SPACE key.			

(63) Motor Valid Code

002018	Input unit	no	Effective time	User level
Motor Mask Ctrl	Input Range	0~0XFFFF	P	Machine Tool Plant Users
	Default value	0x27		
Description:	Press Enter to select the number and quantity of valid motors in the system.			
Attention:				

(64) Handwheel magnification 0~7 steps

007977~7984	Input unit	no	Effective time	User level
Handwheel magnification 0~7 steps	Input Range	0~100000	E	Machine Tool Plant Users
	Default value			
Description:	Set the magnification value corresponding to the handwheel magnification gear.			
Attention:				

(65) Jog multiplication 0~15 steps

007881~7896	Input unit	no	Effective time	User level
JOG multiplier 0~15 steps	Input Range	0~100	E	Machine Tool Plant Users
	Default value			
Description:	Sets the magnification value corresponding to the Jog magnification slot.			
Attention:				

(66) Feed rate 0~31

007897~7928	Input unit	no	Effective time	User level
Feed rate 0~31	Input Range	0~300	E	Machine Tool Plant Users
	Default value			
Description:	Set the multiplication value corresponding to the feed multiplication gear.			
Attention:				

(67) Spindle magnification 0~15 steps

007929~7944	Input unit	no	Effective time	User level
Spindle magnification 0~15 steps	Input Range	0~150	E	Machine Tool Plant Users
	Default value			
Description:	Sets the magnification value corresponding to the spindle magnification gear.			
Attention:				

(68) Fast forward multiplier 0~15 steps

007945~7960	Input unit	no	Effective time	User level
Fast forward multiplier 0~15 steps	Input Range	0~100	E	Machine Tool Plant Users
	Default value			
Description:	Sets the magnification value corresponding to the fast forward magnification slot.			
Attention:				

(69) Jog step multiplier 0~15 steps

007961~7976	Input unit	no	Effective time	User level
Jog step multiplier 0~15 steps	Input Range	0~1000	E	Machine Tool Plant Users
	Default value			
Description:	Sets the magnification value corresponding to the Jog step magnification gear.			
Attention:				

(70) General PLC cycle time

007806	Input unit	millisecond	Effective time	User level
Plc Cycle Time	Input Range	2~20	E	LYNUC users
	Default value	10		
Description:	Set the PLC cycle in the system. The cycle of PLC0 is fixed at 1ms, and the cycle of ordinary PLC must be an integral multiple of 1ms.			
Attention:				

(71) Number of common PLC programs

007810	Input unit	no	Effective time	User level
Plc Num	Input Range	30~99	P	Machine Tool Plant Users
	Default value	30		
Description:	Set the number of PLCs in the system. Exceeded PLC program numbers cannot be used and cannot be loaded successfully.			
Attention:				

(72) Type of machine tool (1:Mill; 2:Lathe)

002020	Input unit	no	Effective time	User level
Machine Type(1:Mill;2:Lathe)	Input Range	1 to 9	P	LYNUC users
	Default value	1		
Description:	The type of control provided by the system is distinguished by the type of machine tool. Provides support for various types of machine tools through different control types. 1: Milling machine series; 2: Lathe series.			
Attention:				

(73) Path Number

002029	Input unit	no	Effective time	User level
Path Number	Input Range	1~2	P	LYNUC users
	Default value	1		
Description:	Set the number of paths supported by the system. When it is set to 2, please confirm whether to enable the [Dual Path Control] registration code authorization.			
Attention:				

(74) Route planning legality testing

002055	Input unit	no	Effective time	User level
Route planning legality testing	Input Range	ON; OFF	E	Machine Tool Plant Users
	Default value	OFF		

Description:	The instructions obtained from the internal calculations of the CNC are detected to avoid instruction errors due to program defects and to prevent storming and crashing. ON: detected; OFF: not detected.
Attention:	ON/OFF is switched by the SPACE key.

(75) Cmd.Pos. Trace

002091	Input unit	no	Effective time	User level
Cmd.Pos. Trace	Input Range	ON; OFF	R	LYNUC users
	Default value	ON		
Description:	ON: Use the command position to draw; OFF: Use the actual position to draw.			
Attention:	ON/OFF is switched by the SPACE key.			

(76) Brake output ratio

040088	Input unit	no	Effective time	User level
Brake Output Ratio	Input Range	0.01~1	E	Machine Tool Plant Users
	Default value	0.1		
Description:	It is used to limit the output force of releasing the brake before killing the motor to prevent the gravity shaft from falling; output force = brake output ratio * maximum output.			
Attention:				

(77) Hw.Int Ervention Is On

002052	Input unit	no	Effective time	User level
Hw.Int Ervention Is On	Input Range	ON; OFF	R	Machine Tool Plant Users
	Default value	OFF		
Description:	After this function is turned on, the handwheel intervention function of the system can be turned on through the PLC interface. ON: open; OFF: not open.			
Attention:	ON/OFF is switched by the SPACE key.			

6. servo (small electric motor)

6.1 U Series Servo Parameters

(1) Motor Activate

040100	Input unit	no	Effective time	User level
Motor Activate	Input Range	ON; OFF	P	Machine Tool Plant Users
	Default value	ON		
Description:	This parameter is automatically generated by [#2018 Motor valid code]. Not currently open.			
Attention:	ON/OFF is switched by the SPACE key.			

(2) Commutation Activate

040101	Input unit	no	Effective time	User level
Commutation Activate	Input Range	ON; OFF	P	Machine Tool Plant Users
	Default value	OFF		
Description:	Set whether to perform phase calculation (vector conversion of current) for the motor, and output a three-phase PWM command. Motors for phase calculation need to set correct current feedback detection parameters, phase position parameters and current loop gain. ON: valid; OFF: invalid.			
Attention:	ON/OFF is switched by the SPACE key.			

(3) Jog speed

004140	Input unit	mm/min	Effective time	User level
Jog speed	Input Range	0~100000	E	Machine Tool Plant Users
	Default value	3000		
Description:	Set the speed at which the motor Jog moves.			
Attention:				

(4) Origin At Negative

004162	Input unit	no	Effective time	User level
	Input Range	ON; OFF		
Origin At Negative	Default value	OFF	E	Machine Tool Plant Users
	Description:	Set the mechanical zero position of the axis; it can be set according to the zero switch of the machine tool. ON: The zero switch is near the negative limit, and the zero return direction is the negative direction; OFF: The zero switch is near the positive limit, and the zero return direction is the positive direction.		
Attention:	The zero switch must be mounted between the positions of the limit switches and must be mounted close to one end of the shaft; if mounted right in the center, it may cause a failure to return to zero.			

(5) Homing Trigger Speed

004161	Input unit	mm/min	Effective time	User level
	Input Range	0~10000		
Homing Trigger Speed	Default value	1000	E	Machine Tool Plant Users
	Description:	Set the speed when searching for the zero switch. Pay attention to setting the appropriate value. If the speed is too fast, the stroke may be too large and the hard limit may be encountered when searching for the zero switch.		
Attention:				

(6) Origin Speed

004141	Input unit	mm/min	Effective time	User level
	Input Range	0~10000		
Origin Speed	Default value	500	E	Machine Tool Plant Users
	Description:	After setting the search zero switch, the moving speed of the search zero. Set an appropriate value, if the speed is too fast, it may affect the repeatability of the mechanical zero point.		
Attention:	Set the appropriate value, if the speed is too fast, it may affect the repeatability of the mechanical zero point.			

(7) Rated speed

104136	Input unit	mm/min	Effective time	User level
	Input	0~10000000		
			E	Machine Tool

Rated speed	Range			Plant Users
	Default value	0		
Description:	Set the rated speed of the servo motor to correspond to the feed speed of the motor.			
Attention:				

(8) Max Speed

004143	Input unit	mm/min	Effective time	User level
Max Speed	Input Range	10~10000000		E
	Default value	30000		
Description:	Sets the maximum speed for this motor.			
Attention:				

(9) Max Acc.

004144	Input unit	g	Effective time	User level
Max Acc.	Input Range	0.01~ 50		E
	Default value	0.3		
Description:	Sets the maximum acceleration for this motor.			
Attention:				

(10) Min Acc. Time

004163	Input unit	millisecond	Effective time	User level
Min Acc. Time	Input Range	2~2000		E
	Default value	20		
Description:	Set the minimum acceleration time for this motor. The smaller the setting, the faster the acceleration, but too fast acceleration may cause overshoot and vibration. Please set the appropriate value according to the actual situation.			
Attention:	The smaller the setting, the faster the acceleration, but accelerating too fast may cause overshoot and vibration. Please set the appropriate value according to the actual situation.			

(11) Joginc Dist

004104	Input unit	mm	Effective time	User level
Joginc Dist	Input Range	0.001~1	E	Machine Tool Plant Users
	Default value	0.001		
Description:		Set the moving distance when Jog jog*1 magnification.		
Attention:				

(12) Positive Limit

004145	Input unit	mm	Effective time	User level
Positive Limit	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:		The maximum allowed positive position when the axis is moving. When the program command position exceeds this setting, the system will issue an alarm. At this point, negative movement can be performed. When this value is set to 0, the forward software limit is invalid.		
Attention:				

(13) Positive Limit2

104145	Input unit	mm	Effective time	User level
Positive Limit2	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:		Refer to [Forward software limit], note: the value of forward software limit 2 must not be less than the value of forward software limit.		
Attention:				

(14) Negative Limit

004146	Input unit	mm	Effective time	User level
Negative Limit	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:		The maximum allowed negative position when the axis is moving.		

	When the program command position exceeds this setting, the system will issue an alarm. At this point, forward motion can be performed. When this value is set to 0, the negative software limit is invalid.
Attention:	

(15) Negative Limit2

104146	Input unit	mm	Effective time	User level
Negative Limit2	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:	See [Negative software limit], note: the value of negative software limit 2 must not be greater than the value of negative software limit.			
Attention:				

(16) Origin Offset

004147	Input unit	mm	Effective time	User level
Origin Offset	Input Range	-999999.9~999999.9	E	Machine Tool Plant Users
	Default value	0		
Description:	The offset of the axis' mechanical zero position relative to the motor zero position. In general, the motor zero position is determined by the zero position switch and the motor zero position signal (Z-phase signal). The user can set the mechanical zero position by the zero offset.			
Attention:				

(17) Fatal Following Error

004151	Input unit	mm	Effective time	User level
Fatal Following Error	Input Range	0~100	E	Machine Tool Plant Users
	Default value	1		
Description:	Set the limit value of following error. When the following error exceeds the set value, the motor will generate a following error too large error, and the system will automatically cut off the main power supply. If the program is being executed at that time, the program will be forced to be interrupted. 0 means to ignore the following error check.			
Attention:	0 indicates that the following error check is ignored.			

(18) Warn Following Error

004152	Input unit	mm	Effective time	User level
Warn Following Error	Input Range	0~100	E	Machine Tool Plant Users
	Default value	0.5		
Description:	Set the warning value of following error. When the following error exceeds the set value, a warning sign will appear. After the error occurs during the running of the program, the system will automatically suspend the program. The setting of this value is smaller than the allowable following error. 0 means to ignore the following error check.			
Attention:	0 indicates that the following error check is ignored.			

(19) 2Nd Following Error

004175	Input unit	mm	Effective time	User level
2Nd Following Error	Input Range	0~100	E	Machine Tool Plant Users
	Default value	0		
Description:	In the dual feedback dynamic compensation control mode, the position following error between the second feedback and the first feedback. It often reflects the sliding or breaking between the transmission mechanisms. Set to 0 to ignore the following error check between the two feedbacks.			
Attention:	Setting 0 means that the following error check between the two feedbacks is ignored.			

(20) Emgstop Dec.

004148	Input unit	g	Effective time	User level
Emgstop Dec.	Input Range	0~50	E	Machine Tool Plant Users
	Default value	0.4		
Description:	Set the acceleration when the axis moves to the soft or hard limit, emergency stop or the axis movement is abnormally aborted. This set value must be greater than the maximum acceleration of the motor. If the value is too small, it may affect the safety, but if it is too large, it will also cause an excessive following error error during abnormal stop.			
Attention:	This setting must be greater than the maximum acceleration for that motor. If this value is too small, safety may be compromised, but if it is too large, it may also cause an excessive following error error to occur during an abnormal stop.			

(21) Jog Acc.

004149	Input unit	g	Effective time	User level
Jog Acc.	Input Range	0~20		
		Default value	0.1	E
Description:	Set the acceleration during JOG or return-to-origin motion.			
Attention:				

(22) Jog Ta

040120	Input unit	millisecond	Effective time	User level
Jog Ta	Input Range	0~2000		
		Default value	100	E
Description:	Set the acceleration time during JOG or return-to-origin motion. When the Jog acceleration time is less than 2 times of the Jog S curve acceleration time, the system automatically adopts twice the set value of the Jog S curve acceleration time.			
Attention:	When the Jog acceleration time is less than 2 times the Jog S curve acceleration time, the system automatically adopts 2 times the Jog S curve acceleration time setting.			

(23) Jog Ts

040121	Input unit	millisecond	Effective time	User level
Jog Ts	Input Range	0~2000		
		Default value	50	E
Description:	Set the time-varying acceleration (S-shaped speed curve) time for JOG or return-to-origin motion. This value and Jog Max Acceleration determine the jerk of the movement. When this setting is 0, the movement will follow a T-shaped velocity curve.			
Attention:	When this setting is 0, the motion will move in a T-speed curve.			

(24) Origin Flag Delay

004108	Input unit	no	Effective time	User level
Origin Flag Delay	Input Range	ON; OFF		
		Default value	OFF	E
Description:	Set whether to enable the automatic delay function of the zero return			

	switch. The default value is OFF, which means that this function is not enabled. When the system detects that the value of the zero grid value is at a critical position, the delay function needs to be turned on.
Attention:	When the zero switch is close to the motor zero signal (Z-phase signal), it is easy to create a problem where the zero position differs by one pitch. When this function is turned on, the system will delay the signal of the zero switch to avoid this problem. However, if the original zero switch is half a pitch away from the motor's zero signal (Z signal), if this function is turned on, the problem of a one-pitch difference in the zero position may occur instead. When the system returns to zero, the user will be prompted to turn the function on or off based on a comparison of the grid amount and the pitch.

(25) In-Pos Band

004142	Input unit	micron (one thousandth of a millimeter or 10^{-6} meter)	Effective time	User level
In-Pos Band	Input Range	0~999.9999	E	Machine Tool Plant Users
	Default value	10		
Description:	When the motor stops, when the following error is within the set range, the motor is judged to be in the in-position state (InPosition). The program can be started and executed only when all motors are in position.			
Attention:				

(26) Screw Pitch Denominator

004123	Input unit	mm	Effective time	User level
Screw Pitch Denominator	Input Range	0.001~1000	P	Machine Tool Plant Users
	Default value	1		
Description:	To set the lead screw pitch, when dividing by the gear ratio of the gear box and it cannot be divided, the denominator needs to be set to this parameter. [Pitch of the lead screw]/[Pitch of the lead screw denominator] corresponds to the length of [Position feedback resolution].			
Attention:	For drive mechanisms with variable speed gearboxes, it is necessary to divide by the gear ratio of the gearbox.			

(27) Screw Pitch Denominator

004130	Input unit	mm	Effective time	User level
Screw Pitch Denominator	Input Range	0.001~1000	P	Machine Tool Plant Users
	Default value	1		
Description:	To set the lead screw pitch, when dividing by the gear ratio of the			

	gear box and it cannot be divided, the denominator needs to be set to this parameter. [Pitch of the lead screw]/[Pitch of the lead screw denominator] corresponds to the length of [Position feedback resolution].
Attention:	

(28) Position Feedback Resolution

004150	Input unit	impulse	Effective time	User level
	Input Range	0~8388607		
	Default value	1000		
Position Feedback Resolution			P	Machine Tool Plant Users
Description:	Set the number of position feedback pulses corresponding to a pitch. This parameter and the lead screw pitch determine the pulse equivalent and position resolution of the axis. Usually, for a rotary motor, it refers to the number of pulses that the motor rotates one revolution; for a linear motor, it refers to the interval between two indices of the grating ruler.			
Attention:	Typically, for rotary motors, this refers to the number of pulses for one revolution of the motor; for linear motors, this refers to the interval between two Indexes of the scale.			

(29) Closeloop Delay Time

004111	Input unit	millisecond	Effective time	User level
	Input Range	100~9999		
	Default value	500		
Closetloop Delay Time			E	Machine Tool Plant Users
Description:	Set the delay time between the motor servo enable (ServoON) and the position closed loop. For PWM controlled drives, this parameter must be set, usually 500.			
Attention:	For PWM-controlled drives, this parameter must be set, usually to 500.			

(30) Motor Ctrl1

040125	Input unit	no	Effective time	User level
	Input Range	0~0XFFFFFFF		
	Default value	0X12C000		
Motor Ctrl1			E	Machine Tool Plant Users
Description:	This parameter sets the polarity and processing method of motor-specific I/O signals, such as servo enable, servo alarm, positive and negative hard limit, zero switch signal, etc.			

	Bits 0 to 15: Signal input address selection; C000, C008, C010, ..., C028 correspond to channels 1, 2, 3, ... 6 of the control card respectively.
	16 bits: default 0 for auto servo enable (ServoON); 1: manual servo enable.
	Bit 17: Default 0, means hard limit is valid, 1: Ignore hard limit processing.
	18 bits: default 1 for hard limit active low (normally closed). 0 for active high (normally open).
	Bit 19: Default 1 for Zero switch input active low (normally closed). 0 for active high (normally open).
	Bit 20: Default 0, indicates the servo alarm is valid, at this time, if the drive has an alarm signal input, it will be automatically servo off (ServoOFF). 1 indicates the servo alarm is ignored.
	Positions 21, 22: internal use.
	Bit 23: Default 1 for servo alarm signal active low (normally closed). 0 for active high (normally open).
Attention:	Typically, motors #1 through #6 are set to \$ 8C C000, \$8CC008, \$8CC010, ... \$8CC028.

(31) Motor Ctrl

004112	Input unit	no	Effective time	User level
Motor Ctrl	Input Range	0~0XFFFF	P	Machine Tool Plant Users
	Default value	0X1F		
Description:	Set the motor control word in mask form. Currently only 0~8 bits are defined, and the remaining bits are reserved. Please refer to the following 6 parameters for the definitions			
	Bit 0: 0 means motor control is invalid. Must be set to 0 for spindle, invalid. 1 indicates that motor control is valid. The motor is monitored and motor commands are allowed to be output.			
	Bit 1: 0 means invalid; 1 means the motor servo is valid when the system is powered up.			
	2 bits: 0 means phase operation is invalid; 1 means phase operation is performed on the motor before closing the loop.			
	3 bits: 0 means invalid. It must be set to 0 when the spindle is invalid; 1 means that the motor makes a closed-loop action when the system is powered up.			
	4 bits: 0 means the OT signal is invalid; must be set to 0 for spindle, invalid. 1 means the OT signal is valid; motors with hard limits must be set to valid, otherwise OT2 will not be able to release the hard limit signal for that motor.			
	Bit 5: Only the main axis sets this bit to 1, which is valid. The feed axis must be set to 0, invalid.			
Attention:	Normally the spindle is set to: 0X20 (i.e. all other control modes are invalid, only the spindle control mode needs to be set). For position			

closed loop spindle, we need to set to 0x3E.
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(32) 1St Reference Offset

004167	Input unit	mm	Effective time	User level
	Input Range	- 999999.999~99999999.999		
1St Reference Offset	Default value	0		
	Description:	G28 reference point.		
Attention:				

(33) 2Nd Reference Offset

004168	Input unit	mm	Effective time	User level
	Input Range	- 999999.999~99999999.999		
2Nd Reference Offset	Default value	0		
	Description:	G30P2 reference point.		
Attention:				

(34) 3Rd Reference Offset

004169	Input unit	mm	Effective time	User level
	Input Range	- 999999.999~99999999.999		
3Rd Reference Offset	Default value	0		
	Description:	G30P3 reference point.		
Attention:				

(35) 4Th Reference Offset

004170	Input unit	mm	Effective time	User level
	Input Range	- 999999.999~99999999.999		
4Th Reference Offset	Default value	0		

Description:	G30P4 reference point.
Attention:	

(36) Userflag Is Nc

004172	Input unit	no	Effective time	User level
Userflag Is Nc	Input Range	ON; OFF	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Sets the polarity of the USER signal. Usually the USER signal is used for tool length measurement, laser tool measurement, probe workpiece measurement and other functions. Please modify the setting value according to the polarity of the actual input signal valid signal.			
Attention:	Please modify this setting value according to the actual polarity of the valid signal of the input signal.			

(37) Grid Reference

004173	Input unit	impulse	Effective time	User level
Grid Reference	Input Range	0~999999	E	Machine Tool Plant Users
	Default value	0		
Description:	After the machine tool determines the zero position, take a relatively stable grid value and input this parameter. After each zero return is completed, the system will compare the difference between the last grid value and the set value. If the error amount is outside the range, the system will issue an alarm.			
Attention:				

(38) Grid Allow Limit

004174	Input unit	impulse	Effective time	User level
Grid Allow Limit	Input Range	0~999999	E	Machine Tool Plant Users
	Default value	0		
Description:	When [Reference Grid Quantity] is not zero, it is used to check raster quantity error after returning to zero. When [#4106 Near zero switch position detection] is ON, it is used to check the near zero switch position deviation after G28 returns to the reference position. The default is OFF, and the grid amount and near-zero switch			

	position checks are not performed.
Attention:	

(39) Hm Flag Cap.

004106	Input unit	no	Effective time	User level
Hm Flag Cap.	Input Range	ON; OFF	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Used in combination with [Grid allowable error amount], when G28 returns to the first reference point, check whether the position of the near-zero switch is offset. When the offset exceeds the range specified by [#4174], the system will issue an alarm to avoid Machine tool shock due to slippage of the coupling.			
Attention:				

(40) Proportional Gain

040130	Input unit	no	Effective time	User level
Proportional Gain	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	2000		
Description:	The proportional gain of the position loop represents the control rigidity of the axis. The larger the setting value, the faster the response. However, if the setting is too large on a machine with poor rigidity, it will cause vibration and overshoot.			
Attention:	However, if the setting is too large on less rigid machines, vibration and overshoot will result.			

(41) Derivative Gain

040131	Input unit	no	Effective time	User level
Derivative Gain	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	The differential gain of the position loop, which represents the electronic damping of the axis, has the effect of suppressing vibration. When the proportional gain is high and causes vibration,			

	this parameter can be appropriately increased. Excessive differential gain will lead to high frequency vibration of the machine tool.
Attention:	Too much differential gain can cause high-frequency vibration of the machine.

(42) Velocity Feedforward Gain

040132	Input unit	no	Effective time	User level
Velocity Feedforward Gain	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	15265		
Description:	<p>[Position feedback resolution]. Set the number of position feedback pulses corresponding to a pitch. This parameter and the lead screw pitch determine the pulse equivalent and position resolution of the axis. Usually, for a rotary motor, it refers to the number of pulses that the motor rotates one revolution; for a linear motor, it refers to the interval between two indices of the grating ruler. Set the delay time between the motor servo enable (ServoON) and the position closed loop. For PWM controlled drives, this parameter must be set, usually 500. This parameter sets the polarity and processing method of motor-specific I/O signals, such as servo enable, servo alarm, positive and negative hard limit, zero switch signal, etc. Set the motor control word in mask form. Currently only 0~8 bits are defined, and the remaining bits are reserved. G28 reference point. G30P2 reference point. G30P3 reference point. G30P4 reference point. Sets the polarity of the USER signal. Usually the USER signal is used for tool length measurement, laser tool measurement, probe workpiece measurement and other functions. Please modify the setting value according to the polarity of the actual input signal valid signal. After the machine tool determines the zero position, take a relatively stable grid value and input this parameter. After each zero return is completed, the system will compare the difference between the last grid value and the set value. If the error amount is outside the range, the system will issue an alarm. When [Reference Grid Quantity] is not zero, it is used to check raster quantity error after returning to zero. When [#4106 Near zero switch position detection] is ON, it is used to check the near zero switch position deviation after G28 returns to the reference position. The default is OFF, and the grid amount and near-zero switch position checks are not performed. Used in combination with [Grid allowable error amount], when G28 returns to the first reference point, check whether the position of the near-zero switch is offset. When the offset exceeds the range specified by [#4174], the system will issue an alarm to avoid Machine tool shock due to slippage of the coupling. The proportional gain of the position loop represents the control rigidity of the axis. The larger the setting value, the faster the response. However, if the setting is too large on a machine with poor rigidity, it will cause vibration and overshoot. The differential gain of the position loop, which represents the electronic damping of the axis, has the effect of suppressing vibration. When the proportional gain is high and causes vibration, this parameter can be appropriately increased. Excessive differential gain will lead to high frequency vibration of the machine tool. The setting of this value is</p>			

	used to reduce the following error caused by too large differential gain setting. This parameter setting is generally larger than the differential gain, which plays a role in feedforward control. When this parameter is too large, it is easy to cause overshoot caused by speed.
Attention:	When this parameter is too large, it tends to cause overshoot due to speed.

(43) Integral Gain

040133	Input unit	no	Effective time	User level
	Input Range	0~8388607		
	Default value	1000		
Integral Gain			E	Machine Tool Plant Users
Description:	Position loop integral gain. Used to eliminate fixed errors. When the integral mode is 1, the integral loop only participates in the operation when the speed is 0, and in the state of motion, the integral of the output remains constant. Excessive integral gain may cause overshoot.			
Attention:	Excessive integral gain may cause overshoot.			

(44) Integration Mode

040134	Input unit	no	Effective time	User level
	Input Range	ON; OFF		
	Default value	OFF		
Integration Mode			E	Machine Tool Plant Users
Description:	This parameter sets when to perform position error integration. ON: Position error integration is always performed, and this value can be modified during motion. OFF: Integration only works when stopped.			
Attention:	ON/OFF is switched by the SPACE key.			

(45) Acc. Feedforward Gain

040135	Input unit	no	Effective time	User level
	Input Range	0~9999999999		
	Default value	40,000		
Acc. Feedforward Gain			E	Machine Tool Plant Users
Description:	Used to reduce following error due to inertial lag due to mass. If this value is set too large, it will cause overshoot.			
Attention:	This value, if set too large, will result in overshoot.			

(46) trapping coefficient

040136~040143 041161~041168	Input unit	no	Effective time	User level
	Input Range	-2~2		
trapping coefficient	Default value	0	E	Machine Tool Plant Users
	Description:	Used to eliminate mechanical resonance.		
Attention:	Please use the SDI trap filter function of the debugging tool to detect the resonance and get this parameter.			

(47) Notch Filter Gain

040144	Input unit	no	Effective time	User level
	Input Range	0~1		
Notch Filter Gain	Default value	0	E	Machine Tool Plant Users
	Description:	Set the notch filter coefficient of the position loop. When this value is 1, the notch filter parameter is completely valid; when this value is set to 0, the notch filter is invalid. When this value is between 0 and 1, the effect of the notch filter works according to the value.		
Attention:				

(48) Static Friction Comp.A

040145	Input unit	no	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.A	Default value	0	E	Machine Tool Plant Users
	Description:	Friction duration.		
Attention:				

(49) Static Friction Comp.B

040146	Input unit	no	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.B	Default value	0	E	Machine Tool Plant Users

Description:	
Attention:	

(50) Static Friction Comp.C

040147	Input unit	no	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.C	Default value	0	E	Machine Tool Plant Users
	Description:	Friction peak.		
Attention:				

(51) Static Friction Comp.T

040148	Input unit	servo cycle	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.T	Default value	0	E	Machine Tool Plant Users
	Description:			
Attention:				

(52) Static Friction Comp.A2

041145	Input unit	no	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.A2	Default value	0	E	Machine Tool Plant Users
	Description:			
Attention:				

(53) Static Friction Comp.T2

041148	Input unit	servo cycle	Effective time	User level
	Input Range	-99999~99999		
Static Friction Comp.T2	Default value	0	E	Machine Tool Plant Users
	Description:			
Attention:				

(54) Couple Gain

040149	Input unit	no	Effective time	User level
Couple Gain	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	This parameter can be adjusted when it is necessary to improve the synchronization performance between the synchronous axes.			
Attention:				

(55) Vel.Feedback Lowfilter

040155	Input unit	no	Effective time	User level
Vel.Feedback Lowfilter	Input Range	0~ 1	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the filter effect of speed feedback. When set to 0 or 1, no low-pass filtering is performed.			
Attention:				

(56) Vel.Feedback Lowfilter

040155	Input unit	Hz	Effective time	User level
Vel.Feedback Lowfilter	Input Range	0~ 10000	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the filter effect of speed feedback. When set to 0 or 1, no low-pass filtering is performed.			
Attention:				

(57) Continuous Current Limit

040157	Input unit	no	Effective time	User level
Continuous Current Limit	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	Maximum continuous output of the position loop. When the integral			

	value exceeds the [Output integral limit], the motor will report an overload error; during the integral process, when the output value is less than the set value, the integral decreases to 0.
Attention:	

(58) Integration Limit

040158	Input unit	no	Effective time	User level
Integration Limit	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value			
Description:	The limit value of IIT integral, when the value of IIT exceeds this parameter value, the system will issue an alarm. Set to 0 to cancel the overload protection.			
Attention:				

(59) Integrated Current Limit

040159	Input unit	no	Effective time	User level
Integrated Current Limit	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	Sets the integral limit for the current in the current loop. When the current integral exceeds this limit, the system will automatically adopt the value of this limit. This parameter is only used in the phase calculation of the motor, please do not modify this parameter arbitrarily.			
Attention:	Use this parameter only when the motor is performing phase calculations.			

(60) Vel.Feedback Filter Time

040160	Input unit	servo cycle	Effective time	User level
Vel.Feedback Filter Time	Input Range	0~200	E	Machine Tool Plant Users
	Default value	0		
Description:	Indicates how many servo interruptions to perform the actual position difference calculation to ensure the smoothness of the speed feedback filter. If the value is set too large, the response of the speed feedback will be too slow. If the value is set too small, the filtering effect will be poor, and the speed feedback may generate burrs and cause noise.			
Attention:				

(61) Cur.Loop Integral Gain

040161	Input unit	no	Effective time	User level
	Input Range	0~1000		E
	Cur.Loop Integral Gain	Default value	40	
Description:	Set the integral gain of the current loop to eliminate the fixed deviation of the current command in the current loop. The larger this value is set, the faster the current response is, but the overshoot of the current may occur. The default setting is 40. This parameter is only used in the phase calculation of the motor, please do not modify this parameter arbitrarily.			
Attention:	The default setting for this value is generally used 40. Use this parameter only when the motor is performing phase calculations.			

(62) Cur.Loop Proportional Gain

040162	Input unit	no	Effective time	User level
	Input Range	0~20000		E
	Cur.Loop Proportional Gain	Default value	600	
Description:	Sets the proportional gain of the current loop. The default setting of 600 for this value is generally used. Appropriately reducing the setting value can reduce noise, but it will also reduce the responsiveness of the current loop. This parameter is only used in the phase calculation of the motor, please do not modify this parameter arbitrarily.			
Attention:	Use this parameter only when the motor is performing phase calculations.			

(63) Integrated Position Limit

040163	Input unit	no	Effective time	User level
	Input Range	-8388608~ 8388607		E
	Integrated Position Limit	Default value	0	
Description:	Sets the limit value for error integration within the position loop. When the value is 0, there is no point limit. When it is greater than 0, this parameter will be used as the limit value of the integral output. When the value is less than 0, if the position error integral exceeds this set value, the system will report an excessive integral			

	error error.
Attention:	

(64) Deadband Gain Factor

040164	Input unit	no	Effective time	User level
Deadband Gain Factor	Input Range	-32768~ 32767	E	Machine Tool Plant Users
	Default value	0		
Description:	Gain adjustment factor for deadband processing in the position loop. When the value is 0, no processing is performed; when it is less than 0, the output gain will be reduced within the dead zone range. Especially when it is -16, the output gain is reduced to 0; when it is greater than 0, within the dead zone range, the output gain will be increased.			
Attention:				

(65) Deadband Size

040165	Input unit	1/16 pulse	Effective time	User level
Deadband Size	Input Range	0~ 32767	E	Machine Tool Plant Users
	Default value	16		
Description:	Sets the range of the position loop deadband. When the position error is within this range, special dead zone processing will be done.			
Attention:				

(66) Pwm Scale Factor

040166	Input unit	no	Effective time	User level
Pwm Scale Factor	Input Range	0~ 32767	E	Machine Tool Plant Users
	Default value	2500		
Description:	Set the percentage of PWM output ratio to determine the maximum output value of each PWM phase command; this parameter is only used when the motor is performing phase calculation, please do not modify this parameter arbitrarily			
Attention:	Use this parameter only when the motor is performing phase calculations.			

(67) Linear Position Error Limit

004160	Input unit	mm	Effective time	User level
	Input	0~ 9999.999	E	Machine Tool

Linear Position Error Limit	Range			Plant Users
	Default value	800		
Description:	Sets the maximum allowable position error for the internal calculation of the position loop. Under normal circumstances there is no need to modify the default value. When the position error is greater than this set value, the system will automatically reduce to the set value, and then participate in the position loop calculation to avoid the large oscillation of the output of the position loop.			
Attention:				

(68) Friction Feedforward Gain

040168	Input unit	no	Effective time	User level
Friction Feedforward Gain	Input Range	-32768~ 32767	E	Machine Tool Plant Users
	Default value	0		
Description:	This parameter is mainly used to eliminate mechanical friction. When the command speed is positive, the output of the position loop will add the set value; when the command speed is negative, the set value will be subtracted from the output. When the command speed is 0, the output is not increased or decreased. Pulse output mode, set this item to 0.			
Attention:				

(69) Output Command Limit

040169	Input unit	no	Effective time	User level
Output Command Limit	Input Range	0~ 32767	E	Machine Tool Plant Users
	Default value	20000		
Description:	Set the instantaneous maximum value output from the position loop. When the calculated output is greater than this setting, it will automatically adjust to this setting value before outputting. Analog output mode, 32767 corresponds to the maximum output voltage command of 10V. Pulse output mode, 32767 corresponds to the maximum pulse frequency output.			
Attention:				

(70) Cur.Loop Proportional Gain

040176	Input unit	no	Effective time	User level
	Input	0~ 1000	E	Machine Tool

Cur.Loop Proportional Gain	Range		Plant Users
	Default value	600	
Description:	Sets the feedback proportional gain of the current loop. The default setting of 600 for this value is generally used. Appropriately reducing this setting value can reduce noise, but it will also reduce the responsiveness of the current loop. This parameter is only used in the phase calculation of the motor, please do not modify this parameter arbitrarily.		
Attention:	Use this parameter only when the motor is performing phase calculations, and do not modify this parameter.		

(71) Encoder Cycle

041110	Input unit	impulse	Effective time	User level
Encoder Cycle	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	The encoder cycle filter is used.			
Attention:				

(72) Dac Bias1

040129	Input unit	no	Effective time	User level
Dac Bias1	Input Range	-32768~32768	E	Machine Tool Plant Users
	Default value	0		
Description:	Analog output compensation.			
Attention:				

(73) Dac Bias2

040179	Input unit	no	Effective time	User level
Dac Bias2	Input Range	-32768~32768	E	Machine Tool Plant Users
	Default value	0		
Description:	Analog output compensation.			
Attention:				

(74) Command Output Addr.

040102	Input unit	no	Effective time	User level
	Input Range	0XC000~ 0XC0FF		
	Command Output Addr.	Default value	0XC002	E
Description:	Specifies the output address of the instruction, generally pointing directly to the output register.			
Attention:				

U3						
channel number	CN1	CN2	CN3	CN4	CN5	
setpoint	C002	C00A	C012	C01A	C022	
U3-MR						
channel number	CN1	CN2	CN3	CN4	CN5	CN1-2
setpoint	C002	C00A	C012	C01A	C022	C02A
U5A(R)						
channel number	CN1	CN2	CN3	CN4	CN5	CN6
setpoint	C002	C00A	C012	C01A	C022	C02A

(75) Position Loop Feedback Addr.

040103	Input unit	no	Effective time	User level
	Input Range	0X720~ 0X73F		
	Position Loop Feedback Addr.	Default value	0X720	P
Description:	Specifies the position feedback address of the position loop. Usually points to the position conversion table.			
Attention:	Refer to the table below to select the address according to the servo channel number.			

U3						
channel number	CN11	CN12	CN13	CN4	CN5	

setpoint	720	721	722	723	724	
U3-MR						
channel number	CN11	CN12	CN13	CN4	CN5	CN11-2
setpoint	720	721	722	723	724	725
channel number	CN1	CN2	CN3			
setpoint	726	727	728			
U5A(R)						
channel number	CN11	CN12	CN13	CN14	CN5	CN6
setpoint	720	721	722	723	724	725
channel number	CN1	CN2	CN3	CN4	CN1-2	
setpoint	726	727	728	729	72A	

(76) Speed Feedback Selection

040104	Input unit	no	Effective time	User level
Velocity Loop Feedback Addr.	Input Range	0X720~0X73F	P	Machine Tool Plant Users
	Default value	0X720		
Description:	Set the speed feedback address of the speed loop. Usually, the same address is selected for speed feedback and position feedback. When using dual feedback, we usually connect the encoder feedback to the velocity feedback selection, and the grating ruler feedback to the position feedback selection.			
Attention:				

(77) Master Position Addr.

040105	Input unit	no	Effective time	User level
Master Position Addr.	Input Range	0X720~0XFFFFFFFF	E	Machine Tool Plant Users
	Default value	0x72E		
Description:	Specify the following position address of the motor. Usually, it is limited to define the following position selection of the handwheel. The following position of the first handwheel is 0x72E.			
Attention:				

(78) 2nd Follow Location Options

004171	Input unit	no	Effective time	User level
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			time	
Master Position Addr.2	Input Range	0X720~ 0X73F	E	Machine Tool Plant Users
	Default value	0x72F		
Description:	Designate the following position address of the 2nd handle.			
Attention:				

(79) Master Scale Numerator

040107	Input unit	no	Effective time	User level
Master Scale Numerator	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	1		
Description:	As a general-purpose servo axis, in the handwheel mode, the motor follows the pulse movement generated by the handwheel, which together with the [#41*08 Follow position proportional denominator] determines the moving distance of one grid of the handwheel. Usually, the handwheel in the system is set so that 1 pulse corresponds to 1um.			
Attention:				

(80) Master Scale Denominator

041108	Input unit	no	Effective time	User level
Master Scale Denominator	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	1		
Description:	Follows the position scale denominator. See[#40*07 Follow position proportional numerator].			
Attention:				

(81) Position Scale Factor

040108	Input unit	no	Effective time	User level
Position Scale Factor	Input Range	1~8388607	E	Machine Tool Plant Users
	Default value	96		
Description:	Sets the scale factor for the position loop position feedback. Modifying this value will affect the gain parameter, please do not modify the parameter value arbitrarily.			

Attention:	Do not modify the value of this parameter arbitrarily.
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(82) Velocity Loop Scale Factor

040109 Velocity Loop Scale Factor	Input unit	no	Effective time E	User level
	Input Range	1~8388607		Machine Tool Plant Users
	Default value	96		
Description:	Sets the scale factor for the position loop position feedback. Modifying this value will affect the gain parameter. Please do not modify the parameter value arbitrarily.			
Attention:	Do not modify the value of this parameter arbitrarily.			

(83) Dynamic Pos. Comp. Ctrl

041105 Dynamic Pos. Comp. Ctrl	Input unit	no	Effective time E	User level
	Input Range	0~0xFFFFFFFF		Machine Tool Plant Users
	Default value	0		
Description:	Set the control method of dynamic compensation in dual feedback. It is usually suitable for machine tools with weak mechanical rigidity and equipped with grating scales and circular gratings.			
Attention:				

(84) Dynamic Pos. Comp. Rate

041106 Dynamic Pos. Comp. Rate	Input unit	1/16 pulse	Effective time E	User level
	Input Range	0~65536		Machine Tool Plant Users
	Default value	0		
Description:	Sets the compensation rate for dynamic compensation.			
Attention:				

(85) Commutation Cycles(N) Num.

040170	Input unit	no	Effective time	User level
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	Input Range	-255~255	P	Machine Tool Plant Users
Commutation Cycles(N) Num.	Default value	1		
Description:	Sets the number of pole pairs for one motor revolution. For linear motors, it is generally set to 1, and for rotary motors, it is generally set according to the motor specification. The sign determines the directional correlation between the UVW phase sequence and the feedback position. When the direction is opposite, change the sign of this value.			
Attention:				

(86) Counts Per Commutation Cycle

040171	Input unit	no	Effective time	User level
Counts Per Commutation Cycle	Input Range	-300000000~300000000	P	Machine Tool Plant Users
	Default value	0		
Description:	For a rotary motor, the number of periodic pulses is the number of pulses in one rotation. For a linear motor, the phase value is the number of pulses corresponding to the distance of a pair of NS permanent magnets, which together with the number of motor pole pairs determine the phase position total pulse of a phase cycle number.			
Attention:				

(87) Commutation Phase Angle

040172	Input unit	no	Effective time	User level
Commutation Phase Angle	Input Range	0~255	P	Machine Tool Plant Users
	Default value	171		
Description:	Defines the phase angle from phase A to phase B of the motor.			
Attention:				

(88) Phase Reference

040175	Input unit	Pulse*Ix70	Effective time	User level
	Input Range	-300000000~300000000	E	Machine Tool Plant

Phase Reference	Default value	180000		Users
Description:	Set the phase reference point, that is, the phase position of the Hall sensor CS value of 1 to 5 change boundary. This parameter can determine the phase position of the motor together with the setting of the phase angle and the number of pulses in the phase position cycle. For absolute encoders, this value is the phase angle value when the encoder is 0.			
Attention:	Use this parameter only when the motor is performing phase calculations.			

(89) Magnetization Current

040177	Input unit	no	Effective time	User level
	Input Range	-32768~32767		
Magnetization Current	Default value	180000	E	Machine Tool Plant Users
Description:	Set the induction motor excitation current Id. This parameter is only used in the phase calculation of the motor. Please do not modify this parameter at will. This value is temporarily unavailable.			
Attention:				

(90) Slip Gain

040178	Input unit	no	Effective time	User level
	Input Range	0.000~1.000		
Slip Gain	Default value	0	E	Machine Tool Plant Users
Description:	Set the slip of the asynchronous motor. Synchronous servo motors do not need to set this parameter. Not currently open.			
Attention:	Synchronous servo motors do not need to set this parameter. It is not open for the time being.			

(91) Power-Up Mode

040180	Input unit	no	Effective time	User level
	Input Range	0~3		
Power-Up Mode	Default value	0	E	Machine Tool Plant Users
Description:	Not currently open.			
Attention:				

(92) Cur.Loop Feedback Addr.

040182	Input unit	no	Effective time	User level
	Input Range	0XC000~ 0XC0FF		E
Cur.Loop Feedback Addr.	Default value	0XC005		
Description:	Set the current feedback address. This parameter is used when the motor performs phase calculation, please do not modify this parameter arbitrarily.			
Attention:	Do not modify this parameter arbitrarily. See the following table for the correspondence with the axis channel.			

channel number	CN1	CN2	CN3	CN4
address	0xC005	0xC00D	0xC015	0xC01D

(93) Commutation Position Addr.

040183	Input unit	no	Effective time	User level
	Input Range	0XC000~ 0XC0FF		E
Commutation Position Addr.	Default value	0XC001		
Description:	Set the phase position feedback address. This parameter is used when the motor performs phase calculations. Please do not modify this parameter arbitrarily.			
Attention:	Do not modify this parameter arbitrarily. See the following table for the correspondence with the axis channel.			

channel number	CN1	CN2	CN3	CN4
address	0xC001	0xC009	0xC011	0xC019

(94) Cur.Loop Feedback Mask

040184	Input unit	no	Effective time	User level
	Input Range	0XC000~ 0XC0FF		E
Cur.Loop Feedback Mask	Default	0XC006		

	value			
Description:	Set the current feedback address. This parameter is used when the motor performs phase calculations. Please do not modify this parameter arbitrarily.			
Attention:	Do not modify this parameter arbitrarily. See the following table for the correspondence with the axis channel.			

channel number	CN1	CN2	CN3	CN4
address	0xC006	0xC00E	0xC016	0xC01E

(95) Encoder Direction Ctrl

040910	Input unit	no	Effective time	User level
Encoder Direction Ctrl	Input Range	0~3	P	Machine Tool Plant Users
	Default value	1		
Description:	Set whether the direction of the main encoder is reversed. 0: unchanged; 1: reversed. If the encoder orientation is incorrect, it may affect the phase position parameters and position loop parameters. Usually, this parameter only determines the direction of one feedback channel. For U3B-MR series, this parameter determines two feedback channels at the same time.			
Attention:	The usual situation is different from the use of U3-MR, so note the distinction.			

The usual:

040910	0	1
orientations	greater than zero	turn one's back on

U3-MR/U5-R.

040910	0	1	2	3
CN11 Feedback direction	greater than zero	turn one's back on	greater than zero	carry (on one's back)
CN1 Feedback direction	greater than zero	greater than zero	carry (on one's back)	carry (on one's back)

(96) Encoder Capture Ctrl

040912	Input unit	no	Effective time	User level
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Encoder Capture Ctrl	Input Range	0~15	E	Machine Tool Plant Users
	Default value	0		
Description:	<p>Set the location capture trigger condition. This setting will be referred to during the zero return operation. This setting has a total of 4 binary digits.</p> <p>0: Software Capture: At this point, the return-to-zero process simply zeroes out the current mechanical coordinates.</p> <p>1: Index Capture: Captures the zero position based only on the Z-phase signal of the encoder.</p> <p>2: FLAG Capture: Captures the zero position based on the capture switch (FLAG) only. The capture switch is determined by the FLAG control word, which can be one of the dedicated IOs for that motor.</p> <p>3: FLAG+Index Capture: Combined capture switch and encoder Z-phase signal together to capture the zero position.</p>			
Attention:	<p>Its bits 3 and 4 are the encoder's Z-phase signal (Index) and the level polarity control bit of the capture switch (FLAG), respectively, with 0 indicating a valid high level and 1 indicating a valid low level. For example, a setting of 11 means that the zero position is captured using FLAG low and Index high.</p>			

(97) Capture Flag Select Ctrl

040913	Input unit	no	Effective time	User level
Capture Flag Select Ctrl	Input Range	0~3	E	Machine Tool Plant Users
	Default value	0		
Description:	<p>Set the source of the position capture switch signal, which can be one of the dedicated IOs for this motor.</p> <p>0: HMFLn, origin switch, generally used;</p> <p>1: PLIMn, positive limit switch;</p> <p>2: MLIMn: negative limit switch;</p> <p>3: USERn, user-defined switch.</p>			
Attention:				

(98) 2Nd Encoder Capture Activate

041101	Input unit	no	Effective time	User level
2Nd Encoder Capture Activate	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	<p>When setting the dynamic compensation closed-loop control mode, the Z-phase signal of the encoder comes from the position feedback channel selection, or the channel specified by the dynamic compensation control word. By default, it always comes from the channel specified by the position feedback channel selection.</p>			
Attention:				

(99) Osls Feedback

041912	Input unit	no	Effective time	User level
	Input Range	0~8		E
Osls Feedback	Default value	0		
Description:	Set whether it is a step code grating ruler.			
Attention:				

(100) Osls Index Distance

041917	Input unit	impulse	Effective time	User level
	Input Range	0~8388607		E
Osls Index Distance	Default value	0		
Description:	Set the number of standard equally spaced pulses of the step code grating ruler. Please set according to the specifications of the grating scale.			
Attention:	Refer to the specifications of the scale for setting.			

(101) Osls Index Increase

041918	Input unit	impulse	Effective time	User level
	Input Range	0~8388607		E
Osls Index Increase	Default value	0		
Description:	Set the number of pulses of the next step of the standard equal distance of the step code grating ruler. Please set according to the specifications of the grating scale.			
Attention:				

(102) Encoder Gated Index

040914	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
Encoder Gated Index	Default value	OFF		

Description:	Set the current loop control position. OFF: software current loop; ON: firmware current loop. Usually defaults to OFF.
Attention:	Usually always defaults to OFF

(103) Encoder Index Gate State

040915	Input unit	no	Effective time	User level
Encoder Index Gate State	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Set the number of encoder bits.			
Attention:				

(104) Output Mode

040916	Input unit	no	Effective time	User level
Output Mode	Input Range	0~3	P	Machine Tool Plant Users
	Default value	2		
Description:	Set the output mode selection. 0: The output is PWM, and this output mode is selected when the motor performs phase calculation; 1: The output is DAC, analog output control mode, which can be closed-loop control; 2: The output is PFM, pulse output control mode; 3: Bus mode .			
Attention:				

(105) Output Pfm Mode Ctrl

040917	Input unit	no	Effective time	User level
Output Pfm Mode Ctrl	Input Range	0~3	E	Machine Tool Plant Users
	Default value	0		

Description:	0: The output sequence is pulse + direction; 1: The output sequence is AB phase, 90 degree phase difference.
Attention:	

(106) Output Pfm Dir.Signal Ctrl

040918	Input unit	no	Effective time	User level
Output Pfm Dir.Signal Ctrl	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	When setting pulse control, whether the output needs to be reversed. ON: The output needs to be reversed; OFF: The output does not need to be reversed.			
Attention:				

(107) Encoder Feedback Ctrl

040919	Input unit	no	Effective time	User level
Encoder Feedback Ctrl	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	ON		
Description:	Set feedback position selection. ON: The number of internal output pulses is only valid in the pulse (PFM) output mode, generally used in virtual environment or complete open-loop control; OFF: External encoder.			
Attention:				

(108) Enable Positive Hardlimit

041113	Input unit	no	Effective time	User level
Enable Positive Hardlimit	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		

Description:	When the system is in the positive hard limit, press the OT2 (ignore hard limit) button to select the protection mode as follows. ON: The motor is not allowed to move forward; OFF: The motor is allowed to continue moving forward.
Attention:	

(109) Enable Negative Hardlimit

041114	Input unit	no	Effective time	User level
Enable Negative Hardlimit	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	When the system is at the negative hard limit, press the OT2 (ignore the hard limit) button and press the protection method. ON: The motor is not allowed to move in the negative direction; OFF: The motor is allowed to continue to move in the negative direction.			
Attention:				

(110) Output Through Break-On

041125	Input unit	no	Effective time	User level
Output Through Break-On	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Set whether the brake output corresponding to this motor is used as a general output. When the system parameter "Allow Multiplexed Brake Output" is set to ON, it is meaningful to set this parameter to ON. ON: Use as general-purpose output. OFF: Controlled by the control card software.			
Attention:				

(111) Pos. Scale Factor

041913	Input unit	no	Effective time	User level
Pos. Scale Factor	Input Range	-255~65536	P	Machine Tool Plant Users
	Default value	0		

Description:	Set the electronic gear ratio between the encoder feedback resolution and the command output resolution. Usually used for full closed-loop control, when the resolution of the grating scale is high, resulting in high-speed movement, the driver cannot receive the pulse frequency sent by the controller.
Attention:	Number of received pulses = Number of feedback pulses * (#41913+256)/256

(112) Counts Per Cycle Of Index

041914	Input unit	impulse	Effective time	User level
	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Counts Per Cycle Of Index				
Description:	Set the distance between the two INDEX signals of the feedback channel, usually this value is the number of pulses fed back by one rotation of the rotary encoder. Used in conjunction with [#41915], it can be used to detect whether the position feedback and Z-phase signals are normal. Set to 0 to ignore both check functions.			
Attention:	Setting it to 0 will ignore both check functions.			

(113) Check Feedback Loss

041915	Input unit	impulse	Effective time	User level
	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Check Feedback Loss				
Description:	This parameter is used together with [#41914 Index interval pulse number]. When the actual feedback Index interval pulse number deviates from the set value, and the deviation value is greater than this parameter, the corresponding motor reports an error. Set to 0, ignore the feedback missing pulse check function, but the Z-phase signal detection function is still enabled.			
Attention:	When this parameter is set to 0, the checking function of the feedback lost pulse is ignored, but the detection function of the Z-phase signal remains on.			

(114) Enable Dda Ctrl

041916	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	E	Machine Tool Plant

Enable Dda Ctrl	Default value	ON		Users
Description:	Set whether the motor is controlled by DDA. In the DDA control mode, the position loop of the motor is completed at the driver end, and the system does not need to set the relevant gain parameters. ON: DDA control of the motor. OFF: DDA control of the motor is not performed.			
Attention:				

(115) Max Acc. Of Encoder

004113	Input unit	G	Effective time	User level
	Input Range	0~999		
	Max Acc. Of Encoder	Default value	0	E
Description:	There is always a certain amount of jitter in the actual feedback of the encoder. After setting this parameter, the system will automatically filter out the jitter that exceeds the acceleration value. However, if the acceleration value exceeds the acceleration value for more than 7 consecutive times, the system will issue an alarm: the feedback signal is abnormal.			
Attention:				

(116) Positive Hardlimit Ctrl

041126	Input unit	no	Effective time	User level
	Input Range	0~0XFFFFFFFF		
	Positive Hardlimit Ctrl	Default value	0	E
Description:	Set the general IO of the YIO board as the positive limit signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(117) Negative Hardlimit Ctrl

041127	Input unit	no	Effective time	User level
	Input Range	0~0XFFFFFFFF		
Negative Hardlimit			E	Machine Tool Plant Users

Ctrl	Default value	0		
Description:	Set the general IO of YIO as the negative limit signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(118) Origin Ctrl

041128	Input unit	no	Effective time	User level
Origin Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the general IO of YIO as the origin signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(119) Break Ctrl

041129	Input unit	no	Effective time	User level
Break Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value			
Description:	Set the general IO of YIO as the output of the break number. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(120) Userflag Ctrl

041123	Input unit	no	Effective time	User level
Userflag Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		

Description:	Set the general IO of YIO as the User signal. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.
Attention:	

(121) Phase Check Type

040181	Input unit	no	Effective time	User level
Phase Check Type	Input Range	0~0XFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Magnetic pole check type, the corresponding settings of different bit definitions, please refer to [Parameter Manual] for details.			
Attention:				

(122) Abs. Feedback

004109	Input unit	no	Effective time	User level
Abs. Feedback	Input Range	0~3	E	Machine Tool Plant Users
	Default value	0		
Description:	0: Incremental feedback; 1: Feedback of reading absolute position through serial port; 2: Absolute grating feedback; 3: Contains 1 and 2, same as 1.			
Attention:				

(123) Encoder Position Check

104137	Input unit	no	Effective time	User level
Encoder Position Check	Input Range	ON, OFF	E	Machine Tool Plant Users
	Default value	ON		
Description:	Temporary absolute encoder function, can save the current position of incremental feedback after power off, or verify the current position of absolute feedback.			
Attention:				

(124) Encoder Type

041910	Input unit	no	Effective time	User level
	Input Range	0~15		
Encoder Type	Default value	0	P	Machine Tool Plant Users
	Description: Define the encoder type. 0: Incremental; 1: Tamagawa; 4: BISS-C; 5: FeeDAT; 6: Nikon; 8: EnDat; 13: S2AL; 14: Panasonic encoder.			
Attention:		9 (HEIDENHAIN Absolute Linear Ruler) usage, the U5/U3D controller software must be used (3.6.4.5D) or higher and the latest FI version. Earlier versions, are not supported. 4 (BISS-C) usage, the latest software (3.6.6.67) and FI (010C0E09, 010C8E09) must be used for U5/U3D.		

(125) PID type

040118	Input unit	no	Effective time	User level
	Input Range	0~1		
PID type	Default value	0	E	Machine Tool Plant Users
	Description: 0: Position PID; 1: Speed PID. In general, the location PID is always used by default.			
Attention:		Typically, the position PID is always used by default.		

(126) Ntegrated Adjust Multiple

041134	Input unit	no	Effective time	User level
	Input Range	0~32767		
Integration Mode	Default value		E	Machine Tool Plant Users
	Description: This parameter sets when to perform position error integration. ON: Position error integration is always performed, and this value can be modified during motion. OFF: Integration only works when stopped.			
Attention:				

(127) Delay To Free Brake

041140	Input unit	no	Effective time	User level
	Input Range	0~8388607		
Delay To Free Brake	Default value	0	E	Machine Tool Plant Users
	Description:	PWM control, the delay time of brake release when ServoON. PWM does not have the braking ability, the controller takes over the braking, and the servo takes a period of time from ServoON to the real output torque. Adjust this parameter to make the brake release with a delay to avoid the gravity axis falling off at the moment of power-on.		
Attention:				

(128) Delay To Disbale Amp.

041141	Input unit	servo cycle	Effective time	User level
	Input Range	0~8388607		
Delay To Disbale Amp.	Default value		E	Machine Tool Plant Users
	Description:	In PWM control, when ServoOFF is set, the time to release the brake in advance is to avoid the gravity axis falling due to electrical delay.		
Attention:				

(129) Current Error Limit

041115	Input unit	no	Effective time	User level
	Input Range	0~2000		
Current Error Limit	Default value	1000	E	Machine Tool Plant Users
	Description:	In PWM control mode, if the current feedback of the driver is very large and exceeds the set value, the system will issue an alarm to prevent the danger of running away and burning the motor.		
Attention:				

(130) Servo Delay Count

041116	Input unit	servo cycle	Effective time	User level
	Input Range	0~7		
Servo Delay Count			E	Machine Tool Plant

	Default value	0		Users
Description:	Since different drive devices and control methods have lag in output and feedback, and the lag time is different, by adjusting this parameter, the control synchronization between different motors can be adjusted.			
Attention:				

(131) Allow Sync Follow Err

041173	Input unit	mm	Effective time	User level
Allow Sync Follow Err	Input Range	0~100	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the position deviation limit value between the position of the slave axis and the master axis. When the synchronous position deviation exceeds the set value, the motor will generate an excessive synchronous error error, and the system will automatically cut off the main power supply. If the program is being executed at that time, the program will be forced to be interrupted. 0 means to ignore the following error check.			
Attention:				

(132) Atuophase Mtr Enable

041117	Input unit	servo cycle	Effective time	User level
Atuophase Mtr Enable	Input Range	100~9999	E	Machine Tool Plant Users
	Default value	1000		
Description:	The delay time of the output current during automatic phasing. Usually, the current output of the automatic phase can only be started after the PWM servo is ready and can output the torque normally.			
Attention:				

(133) Atuophase Current Maintain

041118	Input unit	servo cycle	Effective time	User level
Atuophase Current Maintain	Input Range	0~9999	E	Machine Tool Plant Users
	Default value	40		
Description:	The duration of the current output when auto-phasing. If the value of this parameter is too small, it may cause the automatic phase to fail; if it is too large, it will cause the distance to move back and forth during the automatic phase is too large.			
Attention:				

(134) Atuophase Current Cutoff

041119 Atuophase Current Cutoff	Input unit	servo cycle	Effective time E	User level
	Input Range	0~9999		Machine Tool Plant Users
	Default value	300		
Description:	The interval time of current output during auto phase. If the value is too small, it will easily lead to the failure of the automatic phase; if the value is too large, the action time of the automatic phase will be prolonged.			
Attention:				

(135) Atuophase Openloop Value

041120 Atuophase Openloop Value	Input unit	percentage	Effective time E	User level
	Input Range	0~50		Machine Tool Plant Users
	Default value	5		
Description:	When auto-phase, the current output by the motor, this parameter is the percentage of rated output. If it is too large, it is easy to cause motor jitter; if it is too small, the phase detection may be inaccurate.			
Attention:				

(136) Autophase Over Time

104132 Autophase Over Time	Input unit	millisecond	Effective time E	User level
	Input Range	0~9999		Machine Tool Plant Users
	Default value	0		
Description:	Timeout for detecting completion when auto-phase. An error is reported when the automatic phase process exceeds this time.			
Attention:				

(137) Driver Error Polarity

041122 Driver Error Polarity	Input unit	no	Effective time E	User level
	Input Range	0~0XF		Machine Tool Plant Users
	Default value	0X0		

Description:	Error signal for PWM driver, polarity setting.
Attention:	

(138) 2Nd Output Mtr No

041102	Input unit	no	Effective time	User level
	Input Range	-6~6		E
2Nd Output Mtr No	Default value	0		
Description:	In the setting parameters of the main motor, set the number of the auxiliary motor. In the setting parameters of the auxiliary motor, set the main motor number and add a minus sign. Note that in the setting parameters of the auxiliary motor, both [#41103] and [#41104] must have a minus sign, which is consistent with the sign of [#41102].			
Attention:				

(139) 2Nd Position Loop Feedback Addr.

041103	Input unit	no	Effective time	User level
	Input Range	-32768~32768		E
2Nd Position Loop Feedback Addr.	Default value	0		
Description:	The setting of the main motor contains the feedback address of the auxiliary motor; the setting of the auxiliary motor contains the feedback address of the main motor.			
Attention:	Refer to the table below.			

motor number	#1	#2	#3	#4
address	1824	1825	1826	1827

(140) 2Nd Velocity Loop Feedback Addr.

041104	Input unit	no	Effective time	User level
	Input Range	-32768~32768		E
2Nd Velocity Loop Feedback Addr.	Default value	0		

Description:	Always be consistent with [#41*03 2nd position feedback selection].
Attention:	

(141) 2Nd Pid Output Limit

041169	Input unit	no	Effective time	User level
	Input Range	-32768~32768		E
2Nd Pid Output Limit	Default value	32768		
Description:	An output limit is set to prevent the PID output of the main and auxiliary motors from being too large and causing the motor to vibrate. Usually, the PID output limit of the main motor can be unrestricted, and the default is 32768; the PID output limit of the auxiliary motor is much smaller, and the default is 200.			
Attention:				

(142) Zerocross A

041178	Input unit	no	Effective time	User level
	Input Range	0~32768		E
Zerocross A	Default value			
Description:	The current loop gain adjustment parameter 1 corresponds to the actual larger output current IQ value.			
Attention:				

(143) Zerocross B

041179	Input unit	no	Effective time	User level
	Input Range	0~1200		E
Zerocross B	Default value	0		
Description:	Current loop gain adjustment parameter 2, the actual maximum current proportional gain of the current loop.			
Attention:				

(144) Anti-Collision Mtr No.

041146	Input unit	no	Effective time	User level
	Input Range	-16 ~ 16		E
Anti-Collision Mtr No.	Default value	0		
Description:	Set the motor number for anti-collision protection with this motor. For the setting of the minimum distance between motors, see [Minimum Anti-collision Distance]. Commonly used in double-head machine tools.			
Attention:				

(145) Anti-Collision Min Distance

104138	Input unit	mm	Effective time	User level
	Input Range	0 ~ 9999.999		E
Anti-Collision Min Distance	Default value	0		
Description:	Set the minimum difference of position feedback between the anti-collision motor and this motor, commonly used in double-head machine tools.			
Attention:				

6.2 N3 N5 Servo Parameters

(1) Motor Activate

040100	Input unit	no	Effective time	User level
	Input Range	ON; OFF		P
Motor Activate	Default value	ON		
Description:	This parameter is automatically generated by [#2018 Motor valid code]. Not currently open.			
Attention:	ON/OFF is switched by the SPACE key.			

(2) Motor Device Number

104149	Input unit	no	Effective time	User level
	Input	0~999		P

Motor Device Number	Range		Plant Users
	Default value	0	
Description:	This parameter is automatically generated by the topology. Not currently open.		
Attention:			

(3) Jog speed

004140	Input unit	mm/min	Effective time	User level
	Input Range	0~100000		
Jog speed	Default value	3000	E	Machine Tool Plant Users
	Description:	Sets the speed at which this Motor Jog moves.		
Attention:				

(4) Origin At Negative

004162	Input unit	no	Effective time	User level
	Input Range	ON; OFF		
Origin At Negative	Default value	OFF	E	Machine Tool Plant Users
	Description:	Set the mechanical zero position of this axis. ON: The zero switch is near the negative limit, and the zero return direction is the negative; OFF: The zero switch is near the positive limit, and the zero return direction is the positive.		
Attention:	The zero switch must be mounted between the positions of the limit switches and must be mounted close to one end of the shaft; if mounted right in the center, it may cause a failure to return to zero.			

(5) Homing Trigger Speed

004161	Input unit	mm/min	Effective time	User level
	Input Range	0~10000		
Homing Trigger Speed	Default value	1000	E	Machine Tool Plant Users
	Description:	Set the speed when searching for the zero switch. Pay attention to setting the appropriate value. If the speed is too fast, the stroke may be too large and the hard limit may be encountered when searching for the zero switch.		
Attention:				

(6) Origin Speed

004141	Input unit	mm/min	Effective time	User level
	Input Range	0~10000		
Origin Speed	Default value	500	E	Machine Tool Plant Users
	Description:	After setting the search zero switch, the moving speed of the search zero. Set an appropriate value, if the speed is too fast, it may affect the repeatability of the mechanical zero point.		
Attention:	Set the appropriate value, if the speed is too fast, it may affect the repeatability of the mechanical zero point.			

(7) Rated speed

104136	Input unit	mm/min	Effective time	User level
	Input Range	0~10000000		
Rated speed	Default value	0	E	Machine Tool Plant Users
	Description:	Set the rated speed of the servo motor to correspond to the feed speed of the motor.		
Attention:	This parameter takes effect when "041138 [Fast shift constant power control]" is turned on.			

(8) Max Speed

004143	Input unit	mm/min	Effective time	User level
	Input Range	10~10000000		
Max Speed	Default value	30000	E	Machine Tool Plant Users
	Description:	Set the rated speed of the servo motor to correspond to the feed speed of the motor.		
Attention:				

(9) Max Acc.

004144	Input unit	g	Effective time	User level
	Input Range	0.01~50		
Max Acc.	Default value	0.3	E	Machine Tool Plant Users

Description:	Sets the maximum acceleration for this motor.
Attention:	

(10) Min Acc. Time

004163	Input unit	millisecond	Effective time	User level
	Input Range	2~2000		
Min Acc. Time	Default value	20	E	Machine Tool Plant Users
	Description:	Set the minimum acceleration time for this motor. The smaller the setting, the faster the acceleration, but too fast acceleration may cause overshoot and vibration. Please set the appropriate value according to the actual situation.		
Attention:	The smaller the setting, the faster the acceleration, but accelerating too fast may cause overshoot and vibration. Please set the appropriate value according to the actual situation.			

(11) Joginc Dist

004104	Input unit	mm	Effective time	User level
	Input Range	0.001~1		
Joginc Dist	Default value	0.001	E	Machine Tool Plant Users
	Description:	Set the moving distance when Jog jog*1 magnification.		
Attention:				

(12) Positive Limit

004145	Input unit	mm	Effective time	User level
	Input Range	-999999.9~999999.9		
Positive Limit	Default value	0	R	Machine Tool Plant Users
	Description:	The maximum allowed positive position. When the program command position exceeds this setting, the system will issue an alarm. Negative movement can be performed. When this value is set to 0, the forward software limit is invalid.		
Attention:				

(13) Positive Limit2

104145	Input unit	mm	Effective time	User level
	Input	-999999.9~999999.9		
			R	Machine Tool

Positive Limit2	Range			Plant Users
	Default value	0		
Description:	Refer to [Forward software limit], note: the value of forward software limit 2 must not be less than the value of forward software limit.			
Attention:	The value of the forward soft limit 2 must not be less than the value of the forward soft limit.			

(14) Negative Limit

004146	Input unit	mm	Effective time	User level
Negative Limit	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:	The maximum allowed negative position. When the program command position exceeds this setting, the system will issue an alarm. Forward motion can be performed. When this value is set to 0, the negative software limit is invalid.			
Attention:				

(15) Negative Limit2

104146	Input unit	mm	Effective time	User level
Negative Limit2	Input Range	-999999.9~999999.9	R	Machine Tool Plant Users
	Default value	0		
Description:	See [Negative software limit], note: the value of negative software limit 2 must not be greater than the value of negative software limit.			
Attention:	The value of the negative soft limit 2 must not be greater than the value of the negative soft limit.			

(16) Origin Offset

004147	Input unit	mm	Effective time	User level
Origin Offset	Input Range	-999999.9~999999.9	E	Machine Tool Plant Users
	Default value	0		
Description:	The offset of the axis' mechanical zero position relative to the motor zero position. The motor zero position is determined by the zero position switch and the Z-phase signal. The mechanical zero can be set by the zero offset.			
Attention:				

(17) Fatal Following Error

004151	Input unit	mm	Effective time	User level
	Input Range	0~100		
Fatal Following Error	Default value	1	E	Machine Tool Plant Users
	Description:	Set the limit value of following error. When the set value is exceeded, the following error too large. If the program is being executed at that time, the program will be interrupted. 0 means to ignore the following error check.		
Attention:	0 indicates that the following error check is ignored.			

(18) Warn Following Error

004152	Input unit	mm	Effective time	User level
	Input Range	0~100		
Warn Following Error	Default value	0.5	E	Machine Tool Plant Users
	Description:	Set the warning value of following error. When the set value is exceeded, a warning sign will appear. After the error occurs during the running of the program, the system will suspend. 0 means to ignore the following error check.		
Attention:	0 indicates that the following error check is ignored.			

(19) 2Nd Following Error

004175	Input unit	mm	Effective time	User level
	Input Range	0~100		
2Nd Following Error	Default value	0	E	Machine Tool Plant Users
	Description:	In the dual feedback dynamic compensation control mode, the position following error between the second feedback and the first feedback. 0 means to ignore the following error check between the two feedbacks.		
Attention:	Setting 0 means ignoring the following error check between the two feedbacks.			

(20) Emgstop Dec.

004148	Input unit	g	Effective time	User level
	Input Range	0~50		
Emgstop Dec.			E	Machine Tool Plant Users

	Default value	0.4		
Description:	Set the acceleration when the axis moves to the soft or hard limit, emergency stop or the axis movement is abnormally aborted. This set value must be greater than the maximum acceleration of the motor.			
Attention:	This setting must be greater than the maximum acceleration of this motor. If this value is too small, safety may be compromised, but if it is too large, it can also cause a fatal following error error to occur during an abnormal stop.			

(21) Jog Acc.

004149	Input unit	g	Effective time	User level
	Input Range	0~20	E	Machine Tool Plant Users
Jog Acc.	Default value	0.1		
Description:	Set the acceleration during JOG or return-to-origin motion.			
Attention:				

(22) Jog Ta

040120	Input unit	millisecond	Effective time	User level
	Input Range	0~2000	E	Machine Tool Plant Users
Jog Ta	Default value	100		
Description:	Set the acceleration time during JOG or return-to-origin motion. When the Jog acceleration time is less than 2 times of the Jog S curve acceleration time, the system automatically adopts twice the set value of the Jog S curve acceleration time.			
Attention:	When the Jog acceleration time is less than 2 times the Jog S curve acceleration time, the system automatically adopts 2 times the Jog S curve acceleration time setting.			

(23) Jog Ts

040121	Input unit	millisecond	Effective time	User level
	Input Range	0~2000	E	Machine Tool Plant Users
Jog Ts	Default value	50		
Description:	Set the time-varying acceleration (S-shaped speed curve) time for JOG or return-to-origin motion. This value and Jog Max Acceleration determine the jerk of the movement. When this setting is 0, the movement will follow a T-shaped velocity curve.			
Attention:	When this setting is 0, the motion will move in a T-speed curve.			

(24) Origin Flag Delay

004108	Input unit	no	Effective time	User level
	Input Range	ON; OFF		
Origin Flag Delay	Default value	OFF	E	Machine Tool Plant Users
	Description:	Set whether to enable the automatic delay function of the zero return switch. The default value is OFF, which means that this function is not enabled. It needs to be turned when the value of the zero grid value is at a critical position.		
Attention:	When the zero switch is close to the motor zero signal (Z-phase signal), it is easy to create a problem where the zero position differs by one pitch. When this function is turned on, the system will delay the signal of the zero switch to avoid this problem. However, if the original zero switch is half a pitch away from the motor's zero signal (Z signal), if this function is turned on, the problem of a one-pitch difference in the zero position may occur instead. When the system returns to zero, the user will be prompted to turn the function on or off based on a comparison of the grid amount and the pitch.			

(25) In-Place Detection Range

004142	Input unit	micron (one thousandth of a millimeter or 10^{-6} meter)	Effective time	User level
	Input Range	0~999.9999		
In-Place Detection Range	Default value	10	E	Machine Tool Plant Users
	Description:	When a motor stops, the motor is judged to be in position (InPosition) when the following error is within the set range. Only when all motors are in position can the program be started.		
Attention:				

(26) Lead Screw Pitch

004123	Input unit	mm	Effective time	User level
	Input Range	0.001~1000		
Lead Screw Pitch	Default value	1	P	Machine Tool Plant Users
	Description:	Set the lead screw pitch. For transmissions with variable speed gearboxes, it is necessary to divide by the gear ratio of the gearbox.		
Attention:	For drive mechanisms with variable speed gearboxes, it is necessary to divide by the gear ratio of the gearbox.			

(27) Screw Pitch Denominator

004130	Input unit	no	Effective time	User level
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	Input Range	0.001~1000	P	Machine Tool Plant Users
Screw Pitch Denominator	Default value	1		
Description:	To set the lead screw pitch, when dividing by the gear ratio of the gear box and it cannot be divided, the denominator needs to be set to this parameter. [Pitch of the lead screw]/[Pitch of the lead screw denominator] corresponds to the length of [Position feedback resolution].			
Attention:				

(28) Position Feedback Resolution

004150	Input unit	impulse	Effective time	User level
Position Feedback Resolution	Input Range	0~536870912	P	Machine Tool Plant Users
	Default value	1000		
Description:	Set the number of position feedback pulses corresponding to a pitch. This parameter and the lead screw pitch determine the pulse equivalent and position resolution of the axis. Usually, for a rotary motor, it refers to the number of pulses that the motor rotates one revolution; for a linear motor, it refers to the interval between two indices of the grating ruler.			
Attention:	Typically, for rotary motors, this refers to the number of pulses for one revolution of the motor; for linear motors, this refers to the interval between two Indexes of the scale.			

(29) Closesloop Delay Time

004111	Input unit	millisecond	Effective time	User level
Closesloop Delay Time	Input Range	-300~9999	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the delay time between the motor servo enable (ServoON) and the position closed loop. For PWM controlled drives, this parameter must be set, usually 500.			
Attention:	For PWM-controlled drives, this parameter must be set, usually to 500.			

(30) Motor Ctrl

004112	Input unit	no	Effective time	User level
Motor Ctrl	Input Range	0~0XFFFF	P	Machine Tool Plant Users

	Default value	0X1F		
Description:	Set the motor control word in mask form. Currently only 0~8 bits are defined, and the remaining bits are reserved. Please refer to the following 6 parameters for the definitions			
	Bit 0: 0 means motor control is invalid. Must be set to 0 for spindle, invalid. 1 indicates that motor control is valid. The motor is monitored and motor commands are allowed to be output.			
	Bit 1: 0 means invalid; 1 means the motor servo is valid when the system is powered up.			
	2 bits: 0 means phase operation is invalid; 1 means phase operation is performed on the motor before closing the loop.			
	3 bits: 0 means invalid. It must be set to 0 when the spindle is invalid; 1 means that the motor makes a closed-loop action when the system is powered up.			
	4 bits: 0 means the OT signal is invalid; must be set to 0 for spindle, invalid. 1 means the OT signal is valid; motors with hard limits must be set to valid, otherwise OT2 will not be able to release the hard limit signal for that motor.			
	Bit 5: Only the main axis sets this bit to 1, which is valid. The feed axis must be set to 0, invalid.			
Attention:	Normally the spindle is set to: 0X20 (i.e. all other control modes are invalid, only the spindle control mode needs to be set). For position closed loop spindle, we need to set to 0x3E.			

(31) 1St Reference Offset

004167	Input unit	mm	Effective time	User level
1St Reference Offset	Input Range	- 999999.999~99999999.999	E	Machine Tool Plant Users
	Default value	0		
Description:	G28 reference point			
Attention:				

(32) 2Nd Reference Offset

004168	Input unit	mm	Effective time	User level
2Nd Reference Offset	Input Range	- 999999.999~99999999.999	E	Machine Tool Plant Users
	Default value	0		
Description:	G30P2 reference point.			
Attention:				

(33) 3Rd Reference Offset

004169	Input unit	mm	Effective time	User level
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	Input Range	- 999999.999~99999999.999	E	Machine Tool Plant Users
3Rd Reference Offset	Default value	0		
Description:	G30P3 Reference Point			
Attention:				

(34) 4Th Reference Offset

004170	Input unit	mm	Effective time	User level
4Th Reference Offset	Input Range	- 999999.999~99999999.999	E	Machine Tool Plant Users
	Default value	0		
Description:	G30P4 reference point			
Attention:				

(35) Userflag Is Nc

004172	Input unit	no	Effective time	User level
Userflag Is Nc	Input Range	ON; OFF	E	Machine Tool Plant Users
	Default value	OFF		
Description:	Sets the polarity of the USER signal. Usually the USER signal is used for tool length measurement, laser tool measurement, probe workpiece measurement and other functions.			
Attention:	Please modify this setting value according to the actual polarity of the valid signal of the input signal.			

(36) Grid Reference

004173	Input unit	impulse	Effective time	User level
Grid Reference	Input Range	0~999999		
		Default value	0	E
Description:	After the machine tool determines the zero position, take the stable grid value to input this parameter, after each return to zero, compare the difference between the latest grid value and the set value. Call the police.			
Attention:				

(37) Grid Allow Limit

004174	Input unit	impulse	Effective time	User level
Grid Allow Limit	Input Range	0~999999		
		Default value	0	E
Description:	When [Reference Grid Quantity] is not zero, it is used to check raster quantity error after returning to zero. When is ON, it is used to check the near zero switch position deviation after G28 returns to the reference point.			
Attention:				

(38) Hm Flag Cap.

004106	Input unit	no	Effective time	User level
Hm Flag Cap.	Input Range	ON; OFF		
		Default value	OFF	E
Description:	Used in combination with [Grid Allowable Error], when G28 returns to the first reference point, check whether the position of the near-zero switch is offset. When the offset exceeds the range specified by [#4*74], an alarm will be issued.			
Attention:				

(39) Vel.Feedback Lowfilter

040155	Input unit	no	Effective time	User level
Vel.Feedback Lowfilter	Input Range	0~ 1		
		Default value	0	E
Description:	Set the filter effect of speed feedback. When set to 0 or 1, no low-			

	pass filtering is performed.
Attention:	

(40) Vel.Feedforward Comps Coef

041109	Input unit	Hz	Effective time	User level
Vel.Feedforward Comps Coef	Input Range	0~ 10000		
		Default value	0	E
Description:	Compensation for position command lag is usually the same as the driver's position loop gain setting.			
Attention:				

(41) Second-Order Filter Damping Coef

041176	Input unit	Private service cycle	Effective time	User level
Second-Order Filter Damping Coef	Input Range	0~ 10		
		Default value	0	E
Description:	Set the second-order filter damping coefficient			
Attention:				

(42) Dac Bias1

040129	Input unit	no	Effective time	User level
Dac Bias1	Input Range	-32768~ 32768		
		Default value	0	E
Description:	Set the moving distance when Jog jog*1 magnification.			
Attention:				

(43) Dac Bias2

040179	Input unit	no	Effective time	User level
Dac Bias2	Input Range	-32768~ 32768		
				E

	Default value	0		
Description:	Analog output compensation.			
Attention:				

(44) Continuous Current Limit

040157	Input unit	no	Effective time	User level
Continuous Current Limit	Input Range	0~ 8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	Maximum continuous output of the position loop. When the integral value exceeds the [Output integral limit], the motor will report an overload error; during the integral process. Set to 0 to cancel the overload protection.			
Attention:	Set to 0 to cancel the overload protection.			

(45) Sharp Pulse Compensation Height

041161	Input unit	impulse	Effective time	User level
Sharp Pulse Compensation Height	Input Range	-999999~ 999999	E	Machine Tool Plant Users
	Default value	0		
Description:	When the value is negative, it suppresses the bulge of the quadrant; when the value is positive, it suppresses the depression of the quadrant. The compensation height is: height * resolution. Example: When the bump height is 4um and the axis resolution is 10000, the set value is -40 (= -0.004*10000)			
Attention:				

(46) 3Rd Notch Filter Coef.D2

041164	Input unit	no	Effective time	User level
3Rd Notch Filter Coef.D2	Input Range	0~ 999999	E	Machine Tool Plant Users
	Default value	0		
Description:	Used to eliminate mechanical resonance. Please use the notch filter function of the debugging tool SDI to detect resonance to obtain this parameter.			
Attention:				

(47) Collision Detect Threshold

041170	Input unit	no	Effective time	User level
	Input Range	0.0~ 1.0		
Collision Detect Threshold	Default value	0	E	Machine Tool Plant Users
	Description:			
Attention:				

(48) Structure Comp Lowfilter

041171	Input unit	no	Effective time	User level
	Input Range	0.0~ 1.0		
Structure Comp Lowfilter	Default value	0	E	Machine Tool Plant Users
	Description:			
Attention:				

(49) Master Position Addr.

040105	Input unit	no	Effective time	User level
	Input Range	0X720 ~0XFFFFFFF		
Master Position Addr.	Default value	0X72E	E	Machine Tool Plant Users
	Description:			
Attention:				

(50) Master Position Addr.2

004171	Input unit	no	Effective time	User level
	Input Range	0X720~0X73F		
Master Position Addr.2	Default value	0X72F	E	Machine Tool Plant Users
	Description:			
Attention:				

(51) Master Scale Numerator

040107	Input unit	no	Effective time	User level
	Input Range	0~8388607		
Master Scale Numerator	Default value	1	E	Machine Tool Plant Users
	Description:	The motor follows the pulse movement generated by the handwheel, which together with the [#41*08 Follow position proportional denominator] determines the moving distance of one grid of the handwheel.		
Attention:				

(52) Master Scale Denominator

041108	Input unit	no	Effective time	User level
	Input Range	0~8388607		
Master Scale Denominator	Default value	1	E	Machine Tool Plant Users
	Description:	Follows the position scale denominator. See [#40*07 Follow position proportional numerator].		
Attention:				

(53) Encoder Direction Ctrl

104150	Input unit	no	Effective time	User level
	Input Range	0~1		
Encoder Direction Ctrl	Default value	0	P	Machine Tool Plant Users
	Description:	Set whether the direction of the encoder is reversed. 0: unchanged; 1: reversed. If the encoder orientation is incorrect, it may affect the phase position parameters and position loop parameters.		
Attention:				

The usual:

104150	0	1
directional	greater than zero	turn one's back on

(54) Encoder Capture Ctrl

104151 Encoder Capture Ctrl	Input unit	no	Effective time E	User level
	Input Range	0~15		Machine Tool Plant Users
	Default value	0		
Description:	Set the location capture trigger condition. This setting will be referred to during the zero return operation. This setting has a total of 4 binary digits.			
Attention:	Its bits 3 and 4 are the encoder's Z-phase signal (Index) and the level polarity control bit of the capture switch (FLAG), respectively, with 0 indicating a valid high level and 1 indicating a valid low level. For example, a setting of 11 means that the zero position is captured using FLAG low and Index high.			

(55) Capture Flag Select Ctrl

104152 Capture Flag Select Ctrl	Input unit	no	Effective time E	User level
	Input Range	0~3		Machine Tool Plant Users
	Default value	0		
Description:	Set the source of the position capture switch signal, which can be one of the dedicated IOs for this motor. 0: HMFLn, origin switch; 1: PLIMn, positive limit switch; 2: MLIMn: negative limit switch; 3: USERn, user-defined switch.			
Attention:				

(56) Output Mode

104153 Output Mode	Input unit	no	Effective time E	User level
	Input Range	0~3		Machine Tool Plant Users
	Default value	3		
Description:	Set the output mode selection. 0: PWM, and this output mode is selected when the motor performs phase calculation; 1: DAC, analog output control mode, which can be closed-loop control; 2: PFM, pulse output control mode; 3: Bus mode.			

Attention:	
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(57) Output Pfm Mode Ctrl

104154	Input unit	no	Effective time	User level
	Input Range	0~3		E
	Default value	1		
Output Pfm Mode Ctrl				
Description:	0: The output sequence is pulse + direction; 1: The output sequence is AB phase, 90 degree phase difference.			
Attention:				

(58) Output Pfm Dir.Signal Ctrl

104155	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
	Default value	OFF		
Output Pfm Dir.Signal Ctrl				
Description:	When setting pulse control, whether the output needs to be reversed. ON: The output needs to be reversed; OFF: The output does not need to be reversed.			
Attention:				

(59) Encoder Feedback Ctrl

104156	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
	Default value	ON		
Encoder Feedback Ctrl				
Description:	Set feedback position selection. ON: The number of internal output pulses is only valid in the pulse (PFM) output mode, generally used in virtual environment or complete open-loop control; OFF: External encoder.			
Attention:				

(60) Enable Positive Hardlimit

104157	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
	Enable Positive Hardlimit	Default value	OFF	
Description:	When the system is in the positive hard limit, press the OT2 (ignore hard limit) button to select the protection mode as follows. ON: The motor is not allowed to move forward; OFF: The motor is allowed to continue moving forward.			
Attention:				

(61) Enable Negative Hardlimit

104158	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		E
	Enable Negative Hardlimit	Default value	OFF	
Description:	When the system is at the negative hard limit, press the OT2 (ignore the hard limit) button and press the protection method. ON: Negative movement is allowed; OFF: Negative movement is allowed.			
Attention:				

(62) Pos. Scale Factor

104159	Input unit	no	Effective time	User level
	Input Range	-255~65536		P
	Pos. Scale Factor	Default value	0	
Description:	Set the electronic gear ratio between the encoder feedback resolution and the command output resolution.			
Attention:	Number of received pulses = Number of feedback pulses * (#41913+256)/256			

(63) Counts Per Cycle Of Index

104160	Input unit	impulse	Effective time	User level
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	Input Range	0~8388607	E	Machine Tool Plant Users
Counts Per Cycle Of Index	Default value	0		
Description:	Set the distance between the two INDEX signals of the feedback channel. Used together with 【#104*61, it is used to check whether the position feedback and Z-phase signal are normal. 0 means to both checks are ignored.			
Attention:	Setting it to 0 will ignore both check functions.			

(64) Check Feedback Loss

104161	Input unit	impulse	Effective time	User level
Check Feedback Loss	Input Range	0~8388607	E	Machine Tool Plant Users
	Default value	0		
Description:	This parameter is used together with [#104*60]. When the deviation between the actual feedback Index interval pulse number and the set value is greater than this parameter, the corresponding motor reports an error.			
Attention:	When this parameter is set to 0, the checking function of the feedback lost pulse is ignored, but the detection function of the Z-phase signal remains on.			

(65) Max Acc. Of Encoder

004113	Input unit	G	Effective time	User level
Max Acc. Of Encoder	Input Range	0~999	E	Machine Tool Plant Users
	Default value	0		
Description:	There is always a certain amount of jitter in the actual feedback of the encoder. After setting this parameter, the system will filter out the jitter that exceeds the acceleration value. If it occurs more than 7 times in a row, an alarm will be issued.			
Attention:				

(66) Switch Polarity Setting

104165	Input unit	no	Effective time	User level
Switch Polarity Setting	Input Range	0~ 0XFFFF	E	Machine Tool Plant Users
	Default value	0X82		
Description:	This parameter sets the polarity and processing method of motor-specific I/O signals, such as servo enable, servo alarm, positive and negative hard limit, zero switch signal, etc.			

	Bit 0: Default 0 for auto servo enable (ServoON); 1: Manual servo enable.
	Bit 1: Default 0, means hard limit is valid, 1: Ignore hard limit processing.
	2 bits: default 1 for hard limit active low (normally closed). 0 for active high (normally open).
	3 bits: default 1, indicates that the zero switch input is active low (normally closed). 0 indicates that it is active high (normally open).
	4 bits: default 0, means servo alarm is valid, at this time, if the drive has an alarm signal input, it will automatically servo off (ServoOFF). 1 means ignore the servo alarm.
	5, 6 positions: internal use.
	7 bits: default 1 for servo alarm signal active low (normally closed). 0 for active high (normally open).
Attention:	

(67) Positive Hardlimit Ctrl

041126	Input unit	no	Effective time	User level
Positive Hardlimit Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value	0		
Description:	Set the general IO of the YIO board as the positive limit signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0).			
Attention:				

(68) Negative Hardlimit Ctrl

041127	Input unit	no	Effective time	User level
Negative Hardlimit Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
	Default value			
Description:	Set the general IO of YIO as the negative limit signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(69) Origin Ctrl

041128	Input unit	no	Effective time	User level
Origin Ctrl	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users

	Default value	0		
Description:	Set the general IO of YIO as the origin signal input. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(70) Break Ctrl

041129	Input unit	no	Effective time	User level
	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
Break Ctrl	Default value	0		
Description:	Set the general IO of YIO as the output of the break number. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0), such as 0x0112, which represents the 19th address of the first IO card.			
Attention:				

(71) Userflag Ctrl

041123	Input unit	no	Effective time	User level
	Input Range	0~0xFFFFFFFF	E	Machine Tool Plant Users
Userflag Ctrl	Default value			
Description:	Set the general IO of YIO as the User signal. The first 16 bits are reserved, temporarily set to 0, the middle 8 bits are the card number (starting from 1), and the last 8 bits are the bit number (starting from 0).			
Attention:				

(72) Servo Delay Count

041116	Input unit	servo cycle	Effective time	User level
	Input Range	0~32	E	Machine Tool Plant Users
Servo Delay Count	Default value	0		
Description:	Since different drive devices and control methods have lag in output and feedback, and the lag time is different, by adjusting this parameter, the control synchronization between different motors can be adjusted.			
Attention:				

(73) Allow Sync Follow Err

041173	Input unit	mm	Effective time	User level
	Input Range	0~100		
Allow Sync Follow Err	Default value	0	E	Machine Tool Plant Users
	Description:	Set the position deviation limit value between the slave axis and the master axis. 0 means to ignore the synchronization following error check.		
Attention:				

(74) Abs. Feedback

004109	Input unit	no	Effective time	User level
	Input Range	0~3		
Abs. Feedback	Default value	0	E	Machine Tool Plant Users
	Description:	0: Incremental feedback; 1: Feedback of reading absolute position through serial port; 2: Absolute grating scale feedback, bus-type servo feedback; 3: Contains 1 and 2, same as 1.		
Attention:				

(75) Encoder Type

104162	Input unit	no	Effective time	User level
	Input Range	0~15		
Encoder Type	Default value	0	E	Machine Tool Plant Users
	Description:	Define the encoder type. 0: Incremental; 1: Common absolute encoder; 2: BISS-C (Yuheng); 4: BISS-C (Renishaw); 5: FeeDAT SAL protocol; 6: Nikon 20 bits; 8: EnDat 25 bits (incremental usage); 9: EnDat 32-bit; 13: FeeDAT S2AL protocol.		
Attention:				

(76) Autophase Over Time

104132	Input unit	millisecond	Effective time	User level
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Autophase Over Time	Input Range	0~9999	E	Machine Tool Plant Users
	Default value	0		
Description:	Automatic phase timeout setting.			
Attention:				

(77) Encoder Position Check

104137	Input unit	no	Effective time	User level
	Input Range	ON, OFF		
Encoder Position Check	Default value	ON	E	Machine Tool Plant Users
	Description:	Used to control whether the axis uses the temporary absolute encoder function.		
Attention:	This function is effective when "002057 [Temporary absolute encoder function]" is turned on.			

(78) Second-Order Filter Cutoff Freq

041175	Input unit	no	Effective time	User level
	Input Range	0~1		
Second-Order Filter Cutoff Freq	Default value	0	E	Machine Tool Plant Users
	Description:	Set the second-order filter cutoff frequency		
Attention:				

7. manipulate

(1) Screen Saver

004020	Input unit	no	Effective time	User level
Screen Saver	Input Range	ON; OFF.	E	Normal user
	Default value	OFF		
Description:	Whether to enable the screen saver function. ON: On, OFF: Not on. When set to ON, also need to set [#4021 Screen saver effective time].			
Attention:	When set to ON, "004021 [Screen saver effective time]" must also be set.			

(2) Screen Saver Time

004021	Input unit	minutes	Effective time	User level
Screen Saver Time	Input Range	1~1000	E	Normal user
	Default value	30		
Description:	The waiting time for the system to enter the screen saver state. It is valid when [#4020 Screen saver valid] is ON.			
Attention:	"004020 [Screen saver effective]" is effective when ON.			

(3) Lang(0:Chs;1:Eng)

004011	Input unit	no	Effective time	User level
Lang(0:Chs;1:Eng)	Input Range	0, 1	P	Normal user
	Default value	0		
Description:	Set the language used by the system.			
Attention:				

(4) Overload Lower Limit

004015	Input unit	millisecond	Effective time	User level
	Input Range	200~120000		
Overload Lower Limit	Default value	10000	E	Machine Tool Plant Users
	Description:			
Attention:				

(5) Overload Upper Limit

004016	Input unit	millisecond	Effective time	User level
	Input Range	200~600000		
Overload Upper Limit	Default value	500000	E	Machine Tool Plant Users
	Description:			
Attention:				

(6) Motor Load Monitoring Overload

004017	Input unit	millisecond	Effective time	User level
	Input Range	50~1000		
Overload Percentage	Default value	150	E	Machine Tool Plant Users
	Description:			
Attention:				

(7) Motor monitoring type

004022	Input unit	no	Effective time	User level
	Input Range	0~99		
Montior Type	Default value	1	P	Machine Tool Plant Users
	Description:			

	1: Monitor the output ratio, suitable for pulse control. Currently 0,1 are valid.
Attention:	

(8) Spindle load monitoring effective

004024	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Spindle load monitoring effective	Default value	OFF	P	Machine Tool Plant Users
Description:	Sets whether or not motor load feedback is accessed. If it is connected, the spindle load ratio is displayed on the position screen. ON: Display; OFF: Not displayed.			
Attention:				

(9) Qui Design Mode

004027	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Qui Design Mode	Default value	OFF	E	Machine Tool Plant Users
Description:	Set to enter the application (QUI) edit mode. ON: enter edit mode; OFF: exit edit mode.			
Attention:				

(10) Editing the autosave interval

004028	Input unit	minutes	Effective time	User level
	Input Range	0~360		
Editing the autosave interval	Default value	0	E	Machine Tool Plant Users
Description:	Sets the interval at which the file is automatically saved when editing an NC file, with 0 indicating no automatic saving.			
Attention:				

(11) Numbered file format

004029	Input unit	no	Effective time	User level
	Input	ON; OFF.		
			E	Machine

Numbered file format	Range			Tool Plant Users
	Default value	OFF		
Description:	Whether or not to limit the NC file name format to Oxxxx.NC. ON: Limited; OFF: No qualification.			
Attention:				

(12) User disk subdirectory display

004032	Input unit	no	Effective time	User level		
	Input Range	ON; OFF.			E	Machine Tool Plant Users
	Default value	OFF				
User disk subdirectory display						
Description:	If subdirectories (NC1, NC2, NC3, NC4, NC5) exist under the user's disk, set whether or not to display these subdirectories. ON: Display; OFF: Not displayed.					
Attention:						

(13) Consumables User Mag.

004033	Input unit	no	Effective time	User level		
	Input Range	ON; OFF.			E	Machine Tool Plant Users
	Default value	ON				
Consumables User Mag.						
Description:	Whether to allow normal users to manage consumables. ON: Allowed; OFF: Not allowed, only the user of the machine tool factory is allowed to manage.					
Attention:						

(14) No Error Dialog

004034	Input unit	no	Effective time	User level		
	Input Range	ON; OFF.			E	Machine Tool Plant Users
	Default value	ON				
No Error Dialog						

Description:	Whether an error box will pop up automatically when the system issues an alarm. ON: automatically pops up; OFF: does not pop up, only displays an error bar.
Attention:	

(15) ENTER Direct Login

004035	Input unit	no	Effective time	User level
Enter As Input	Input Range	ON; OFF.	E	Machine Tool Plant Users
	Default value	OFF		
Description:	In the correction module, after inputting the value, press ENTER to directly log in. ON: Enter to log in directly; OFF: Enter to not log in, you must press the login menu to log in.			
Attention:				

(16) Tool measurement coordinate system selection

004036	Input unit	no	Effective time	User level
Mac.Pos Measure In Tool	Input Range	0~2	E	Machine Tool Plant Users
	Default value	0		
Description:	The coordinate system selection of the tool compensation screen measurement function. 0: Absolute cs; 1: Relative cs; 2: Mechanical cs. When set to 0, the left is displayed as Abs/Mech coord; When set to 1 or 2, displayed as Relative coord.			
Attention:				

(17) Font & Color Config

004000	Input unit	no	Effective time	User level
Font & Color Config	Input Range	ON; OFF.	E	LYNUC users
	Default value	OFF		
Description:	Whether the UI font and color configuration tools are enabled. ON: open; OFF: not open.			
Attention:				

(18) Mac. Record Num.

004001	Input unit	no	Effective time	User level
	Input Range	0~5000		
Mac. Record Num.	Default value	1000	E	LYNUC users
	Description:			
Attention:				

(19) Error Record Num.

004002	Input unit	no	Effective time	User level
	Input Range	0~5000		
Error Record Num.	Default value	1000	E	LYNUC users
	Description:			
Attention:				

(20) System Log

004003	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
System Log	Default value	ON	E	LYNUC users
	Description:			
Attention:				

(21) Num. Per Logfile

004004	Input unit	no	Effective time	User level
	Input Range	1~10000		
Num. Per Logfile	Default value	2000	E	LYNUC users

Description:	Set the maximum number of records in a single file of operation log and system log.
Attention:	

(22) Total Log Num.

004005	Input unit	no	Effective time	User level
	Input Range	1~1000000		
Total Log Num.	Default value	30000	E	LYNUC users
Description:	Set the maximum number of records in the operation log and system log.			
Attention:				

(23) Font & Color Scheme

004006	Input unit	no	Effective time	User level
	Input Range	1 to 9		
Font & Color Scheme	Default value	1	P	LYNUC users
Description:	Select the system font and color scheme. Not currently available.			
Attention:				

(24) MDI Maximum Capacity

004007	Input unit	KB	Effective time	User level
	Input Range	1~4		
MDI Maximum Capacity	Default value	4	E	LYNUC users
Description:	Sets the maximum capacity for MDI editing.			
Attention:				

(25) Maximum file support

004008	Input unit	MB	Effective time	User level
	Input Range	1~2000		
			E	LYNUC users

Maximum file support	Default value	1000		
Description:	Sets the maximum file that can be opened and edited.			
Attention:				

(26) Edit Clipboard

004009	Input unit	KB	Effective time	User level
	Input Range	1~30000		
Edit Clipboard	Default value	1000	E	LYNUC users
Description:	Sets the maximum capacity of the clipboard during editing operations.			
Attention:				

(27) undo/redo max.

004010	Input unit	no	Effective time	User level
	Input Range	0~1000		
undo/redo max.	Default value	100	E	LYNUC users
Description:	Sets the maximum number of times an editing operation can be undone/restored.			
Attention:				

(28) System Precision

004012	Input unit	no	Effective time	User level
	Input Range	0~3		
System Precision	Default value	0	E	LYNUC users
Description:	Setting the precision of the system is not open for the time being.			
Attention:				

(29) Counter Is Date

004013	Input unit	no	Effective time	User level
	Input Range	ON; OFF.		
Counter Is Date	Default value	OFF	E	Machine Tool Plant Users
Description:	Set the time display format of [System/Maintenance/Timer]. ON: The display format is xxDxxHxxM; OFF: The display format is xxHxxMxxS.			
Attention:				

(30) Clear Syslog

004014	Input unit	no	Effective time	User level
	Input Range	ON;OFF		
Clear Syslog	Default value	OFF	E	Machine Tool Plant Users
Description:	Whether to allow the machine tool factory and GSPEED users to perform system reset operation. ON: Allowed; OFF: Not allowed.			
Attention:				

(31) Tracing Memory Limit

004018	Input unit	MB	Effective time	User level
	Input Range	10~1024		
Tracing Memory Limit	Default value	100	P	LYNUC users
Description:	Set the maximum memory for wireframe simulation in [Edit/Simulation].			
Attention:				

(32) Measurement of the workpiece should be subtracted from the tool length

004019	Input unit	no	Effective time	User level
	Input Range	ON;OFF		
easure -T.Length	Default value	OFF	P	Machine Tool Plant Users

Description:	Milling machine workpiece compensation, when measuring the Z axis, whether the tool length needs to be subtracted from the measured value. ON: reduce the tool length; OFF: do not reduce the tool length.
Attention:	

(33) Hi Debug Option

004023	Input unit	no	Effective time	User level
Hi Debug Option	Input Range	0~10	E	LYNUC users
	Default value	0		
Description:	If set to 1, the console printing information of the UI will be saved in the operation log for software debugging. 0: do not save; 1: save. After the system restarts, this parameter will be initialized to 0.			
Attention:	This parameter is initialized to 0 after system reboot.			

(34) Ncfile Uppercase

004025	Input unit	no	Effective time	User level
Ncfile Uppercase	Input Range	ON; OFF.	P	LYNUC users
	Default value	OFF		
Description:	Not currently open.			
Attention:				

(35) Interface Type

004026	Input unit	no	Effective time	User level
Ui Type	Input Range	0~99	P	LYNUC users
	Default value	0		
Description:	Not currently open.			
Attention:				

(36) Hard Self Chk Ctrl Wd

004030	Input unit	no	Effective time	User level
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			time	
	Input Range	0~0xFFFF	E	LYNUC users
Hard Self Chk Ctrl Wd	Default value	0		
Description:	Not currently open.			
Attention:				

(37) Sys Para Show Mode

004031	Input unit	no	Effective time	User level
	Input Range	0; 1.	P	LYNUC users
Sys Para Show Mode	Default value	0		
Description:	Set the display style of the parameter setting screen. 0: button style; 1: table style.			
Attention:				

(38) Usb Is Limited

004037	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	E	Normal user
Usb Is Limited	Default value	0		
Description:	Set whether the file management and file opening operations can access the U disk when the system is not logged in. ON: not accessible; OFF: accessible.			
Attention:				

(39) Allow Large Tool

004038	Input unit	no	Effective time	User level
	Input Range	ON; OFF.	E	Machine Tool Plant Users
Allow Large Tool	Default value	OFF		
Description:	Whether to enable the broadsword management authority for users above the machine tool factory level. ON: open;			

	OFF: not open. It is valid when [#8009 Big tool management ON] is ON.
Attention:	

(40) Monitor Error Number 1~20

2180~2199	Input unit	no	Effec tive time	User level
	Input Range	0~9999		
	Monitor error number 1~20	Default value	0	E
Description:	Used to specify the error number. The system has the function of automatic recording and backup of key data at the time of alarm. In addition to the key error numbers within the system, it also allows the user to append some error numbers that need to be recorded and analyzed in a focused manner. When these errors occur, the system function will be triggered to make a timely backup of the system's key data and history so that the problem can be analyzed.			
Attention:				

8. error message

Note: This manual only describes error messages and countermeasures for handling LYNUC NC units. Refer to the machine instruction manual for machine tool error messages.

8.1 Error messages

0001 : System error 0001.

Solution: Please contact the supplier.

Remarks:

0002: System error 0002.

Solution: Please press the [RESET] key to eliminate the alarm. If the error occurs repeatedly, please contact your supplier.

Remarks:

0003: System error 0003.

Solution: Please contact the supplier.

Remarks:

- | |
|---|
| <ol style="list-style-type: none">1. Internal system errors.2. Impossible to access code branches. |
|---|

0004: System error 0004, breakpoint resumption function is not available.
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Solution: Please check if the breakpoint reset function is available or contact your supplier.

Remarks:

0005: Program stopped.

Solution: Push [RESET] to continue.
--

Remarks:

0009: Starting ORIGIN is overtime.

Solution: Please push [RESET] to clear error. If recurring, contact the supplier.
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Remarks:

Kernel boot back to zero action timeout.
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0010: %s line %lu: Limit check error, X-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the X-axis travel.

Remarks:

The NC program is incorrect.

0011: %s line %lu: Limit check error, Y-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the Y-axis travel.

Remarks:

The NC program is incorrect.

0012: %s line %lu: Limit check error, Z-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the Z-axis travel.

Remarks:

The NC program is incorrect.

0013: %s line %lu: Limit check error, A-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the A-axis travel.

Remarks:

The NC program is incorrect.

0014: %s line %lu: Limit check error, B-axis command overtravel.

Solution:

Check the NC program to make sure that the program instructions do not exceed the B-axis travel.

Remarks:

The NC program is incorrect.

0015: %s line %lu: Limit check error, C-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the C-axis travel.

Remarks:

The NC program is incorrect.

0016: %s line %lu: Limit check error, U-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the U-axis travel.

Remarks:

The NC program is incorrect.

0017: %s line %lu: Limit check error, V-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the V-axis travel.

Remarks:

The NC program is incorrect.

0018: %s line %lu: Limit check error, W-axis command overtraveled.

Solution:

Check the NC program to make sure that the program instructions do not exceed the W-axis travel.

Remarks:

The NC program is incorrect.

0019: %s line %lu: Limit check error, UU axis command overtraveled.

Solution:

Please check the NC program to confirm that the program instruction has not exceeded the UU axis travel.

Remarks:

The NC program is incorrect.

0020: %s line %lu: Limit check error, VV axis command overtravel.

Solution:

Check the NC program to make sure that the program instructions do not exceed the VV axis travel.

Remarks:

The NC program is incorrect.

0021: %s line %lu: Limit check error, arc command overtraveled.

Solution:

Check the NC program to make sure that the program instruction for the arc exceeds the axis travel.

Remarks:

The NC program is incorrect.

0022: %s line %lu: Program ends with M02 instruction.

Solution:

Press the [RESET] key to continue.

Remarks:

0023: System error 0023.

Solution:

Please contact the supplier.

Remarks:

0025: Machine Power is abnormal.

Solution:

Please Check your supply, If recurring, contact the supplier.

Remarks:

- 1、 Poor electrical connection problems, or interference;
- 2、 The main power contactor is not firmly suctioned, or there is an abnormality in the output.

0026: Machine Reference is not found.

Solution:

Please HOME firstly.

Remarks:

0027: No Files in Prog.

Solution:

Please Open File firstly.

Remarks:

0028: Current Parts Number is over than Requird Parts Number.

Solution:

Please Clear the Current Parts Number.

Remarks:

The number of machining has exceeded the set number of parts needed.

0030: System error 0030.

Solution:

Please check the NC program, there may be too many tiny NC blocks, useless comment lines or synchronous operation instructions.

Remarks:

1. Too many tiny blocks, too late to calculate or too little PVT.
2. Too many comment lines, taking up too much CPU.
3. Too many synchronization operations.

0033: System setting Error. Parameters of page %d Axes have something wrong.

Solution:

Please check AXIS NO., MASTER AXIS NO., MOTOR NO. of MASTER AXIS, FRIEND AXIS NO., AXIS NO. of FRIEND AXIS. Something is wrong.

Remarks:

1. Axis address range 1~16;
2. The value range of the active shaft number corresponds to the number of motors;
3. The main shaft motor number shall not exceed 32;
4. The value range of the inclined axis Youyuan axis number matches the number of motors;
5. The address of the friendly element axis must be one of XYZABCUVW.

0034: The Number of Block is overflow.

Solution:

Please modify NC Files.

Remarks:

0035: Path is wrong.

Solution:
Please contact the supplier.

Remarks:

0101: Feed Holding.

Solution:
Please push [CycleStart] to continue.

Remarks:

0102: Single Block.

Solution:
Please push [CycleStart] to continue.

Remarks:

0103: Handwheel simulation change.

Solution:
Please press the [PROGRAM START] key to continue.

Remarks:

2009: EtherCAT Communication bus disconnect.

Solution:
Please check Cable and Device.

Remarks:

- 1、 EtherCAT network cable short
- 2、 Loss of power supply from device, unable to connect

2010: System Error 2010.

Solution:
Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

1. Poor contact with PCI slot;
2. The board is damaged; the ZMC board cannot be located.
- 3、 Bad EtherCAT communication

2011: System Error 2011.

Solution:
Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

System real-time errors occur FI watchdog errors.

2012: System controller supply voltage is unstable.

Solution:
Please turn off the machine and confirm whether the power supply voltage is abnormal or not, if the power supply is normal, please restart the system; if the error occurs repeatedly, please contact the supplier.

Remarks:

2013: System Error 2013.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

Hardware communication abnormality.

2014: System error 2014.

Solution:

Please Push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

System real-time error Interrupt reentry error occurred.

2015: System Error 2015.

Solution:

Please Push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

System real-time errors occur SI watchdog errors.

2016: System Error 2016.

Solution:

Please Push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

System real-time errors occur servo-reentry errors.

2018: PLC Download Failed.

Solution:

Please Check PLC.

Remarks:

- 1、 There was an error in the PLC program itself and it failed to load.
- 2、 The PLC number exceeds the allowable number set by the system and cannot be loaded.

2101: %c%c Axis is at Positive Hardlimit.

Solution:

Please PushDown and Hold [OT2], Push [RESET] to clear error, then move Minus into Limitation by Handle or Jog.

Remarks:

2102: %c%c Axis is at Negtive Hardlimit.

Solution:

Please PushDown and Hold [OT2], Push [RESET] to clear error, then move Plus into Limitation by Handle or Jog.

Remarks:

2103: %c%c Axis is at Hardlimit.

Solution:

Please confirm Direction of HardLimit. PushDown and Hold [OT2], Push [RESET] to clear error, then move into Limitation by Handle or Jog.

Remarks:

Positive and negative hard limits in series.

2104: %c%c Axis Amp OV Error.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

2105: %c%c Axis Amp OH Error.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

2106: %c%c Axis position capture deviation is too large.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

2107: %c%c Axis Abnormal alarm was detected.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

2111: %c%c Axis is AmpFault.

Solution:

Please PowerOFF and Restart. If error can't be cleared, confirm Electrical Connector.

Remarks:

2112=%c%c Axis Encoder Cable Disconnect.

Solution:

2112=Please check Encoder Cable, and set Motor Zero again.

Remarks:

2113=%c%c Axis Encoder Warning, Battery is Low Level.

Solution:

2113=Please exchange Battery, and set Motor Zero again.

Remarks:

2115=%c%c Axis ABS Encoder Sensor Wrong.%s

Solution:

Please check Encoder Sensor.

Remarks:

1. Contains alarm messages for Fagor absolute scales:
CPU Error(A0),Parameters Error(A1),CCD Error(A2),Position Error(A3)
2. HEIDENHAIN absolute scale alarms

2116=%c%c Axis ABS Encoder Communication Wrong.%s

Solution:

Please check Encoder Cable.

Remarks:

Contains alarm messages for Fagor absolute scales
Communication Error (A8), Encoder miss Error (A9)

2121=%c%c Axis Feedback is bad.

Solution:

Please check Cable.

Remarks:

1st feedback, acceleration feedback mutation abnormalities.

2122=%c%c Axis 2nd FeedBack is bad.

Solution:

Please check Cable.

Remarks:

2nd feedback, acceleration feedback mutation abnormalities.

2123=%c%c Axis Encoder's feedback is error.

Solution:

Please check Cable.

Remarks:

Feedback has dropped pulses and is dependent on the Index detection function.

2124=%c%c Axis Encoder's feedback is lost.

Solution:

Please check Cable.

Remarks:

The Index spacing pulse count error is oversized and dependent on the Index detection function.

2125=%c%c Axis Encoder's C signal is lost.

Solution:

Please check Cable.

Remarks:

No Index signal is detected, relying on the Index detection function.

2126=%c%c Axis Phase FeedBack Error.

Solution:

Please check Cable.

Remarks:

The phase position does not match the feedback position, possibly because the feedback is missing or the CS sensor signal is abnormal.

2127=%c%c Axis Phase(CS Sensor) Searching Error

Solution:
Please check Cable.

Remarks:
Autophase failed.

2128=%c%c Axis Integration is over limitation.

Solution:
Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

2129=%c%c Axis has very large Following Error.

Solution:
Please push [RESET] to clear error. Please reduce Feedrate or Override.

Remarks:
1. Excessive machining load, check for proper machining conditions;
2. Machining speed is too fast, check that the feed rate and acceleration are not too high;
3. The control parameters do not match, please make sure that the statistics setting parameters have not been modified;
4. Excessive mechanical resistance, verify that there is no mechanical wear or lubrication problems;
5. If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2130=%c%c Axis 2nd Following Error.

Solution:
Please check whether the transmission gap is too large.

Remarks:

2131=%c%c Axis is Overload.

Solution:
Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

2132=%c%c Axis has Contoller Error.

Solution:
Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

2133=%c%c Axis Current Error.

Solution:
Please check Cable.

Remarks:
Current feedback is outside the normal range.

2140=%c%c Axis is invalid.
Solution: Param Error. Please push [RESET] to clear error.
Remarks: If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2141=%c%c Axis is ServoOFF.
Solution: Please push [RESET] to clear error.
Remarks: 1. Drive alarm; 2. Emergency stop not released; 3. In hard limits; 4. System fatal error; 5. The system registration code has expired.

2142=%c%c Axis Rough Phasing is uncompleted.
Solution: Please push [RESET] to clear error, Do Origin again under [REF.] mode.
Remarks: If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2143=%c%c Axis Fine Phasing is uncompleted.
Solution: Please push [RESET] to clear error, Do Origin again under [REF.] mode.
Remarks: If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2144=%c%c Axis is at Positive Softlimit.
Solution: Please move Minus into Limitaion by Handle or Jog, Push [RESET] to clear error.
Remarks:

2145=%c%c Axis is at Negtive Softlimit.
Solution: Please move Plus into Limitaion by Handle or Jog, Push [RESET] to clear error.
Remarks:

2147=%c%c Axis Following Error Alarm.
Solution: Please confirm Operation. You can ignore this error.
Remarks:

2148=%c%c Axis is at Softlimit.

Solution:

Please confirm Direction of SoftLimit. Move into Limitation by handle or Jog. Then push [RESET] to clear error.

Remarks:

1. Internal system error.

2149=%c%cAxis zero position is mismatched with system temporary absolute encoder.

Solution:

Make sure that the machine is operated correctly to prevent crashing. If the phenomenon occurs repeatedly, please contact the supplier.

Remarks:

Temporary absolute encoder function.

2201=%&%d Coord, Following Error is too large.

Solution:

Please push [RESET] to clear error. Reduce Feedrate or Override.

Remarks:

1. Excessive machining load, check for proper machining conditions;
2. Machining speed is too fast, check that the feed rate and acceleration are not too high;
3. The control parameters do not match, please make sure that the statistics setting parameters have not been modified;
4. Excessive mechanical resistance, verify that there is no mechanical wear or lubrication problems.

2202=%&%d Coord, AmpFault.

Solution:

Please PowerOFF and Restart. If recurring, contact the supplier.

Remarks:

1. Drive error, need to power off and restart;
2. If the drive's reset is accessed to the control unit, it can be reset to clear the alarm.

2203=%&%d Coord, Motor is Overload.

Solution:

Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

1. Excessive machining load, check for proper machining conditions;
2. Machining speed is too fast, check for excessive feed rate and acceleration.

2204=%&%d Coord, Contoller Error happens.

Solution:

Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

1. Internal system error.

2205=%&%d Coord, Rotary Buffer is Abnormal.

Solution:
Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:
1. Internal system error.

2206=&%d Coord, At Positive Softlimit.

Solution:
Please move Minus into Limitaion by Handle or Jog, Push [RESET] to clear error.

Remarks:

2207=&%d Coord, At Negtive Softlimit.

Solution:
Please move Plus into Limitaion by Handle or Jog, Push [RESET] to clear error.

Remarks:

2208=%d number coordinate system, caught in a HALT state.

Solution:
Please press the [RESET] key to cancel the alarm. If the alarm cannot be eliminated or the phenomenon occurs repeatedly, contact your supplier.

Remarks:
1. Internal system error.

2209: Coordinate system in %d, stuck in a QUIT state.

Solution:
Please press the [RESET] key to cancel the alarm. If the alarm cannot be eliminated or the phenomenon occurs repeatedly, contact your supplier.

Remarks:
1. Internal system error.

2210: Coordinate system in %d, stuck in ABORT state.

Solution:
Please press the [RESET] key to cancel the alarm. If the alarm cannot be eliminated or the phenomenon occurs repeatedly, contact your supplier.

Remarks:
1. Internal system error.

2211: &%d Coord, At Softlimit.

Solution:
Please confirm Direction of SoftLimit. Move into Limitation by handle or Jog. Then push [RESET] to clear error.

Remarks:

2212=&%d Coord, Motor Integration is over limitation.

Solution:
Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

2213=&%d Coord, %s Motor is not in position.

Solution:
Please push [EMG STOP], then release it and [RESET] to clear error. If recurring, contact the supplier.

Remarks:
1. There is a loss of command pulses
2. Feedback pulse has lost

2214=&%d Coord, 2nd Following Error.

Solution:
Please check whether the transmission gap is too large.

Remarks:

3001=%s L%lu: Size of File is too Large.

Solution:
System donot support the large file.

Remarks:

3002: %s L%lu: File is bad.

Solution:
Please copy this file again.

Remarks:

3003: %s L%lu: File is forbidden.

Solution:
Please RUN this file on appointed machine.

Remarks:

3004: %s L%lu: Tool Number(T) is wrong.

Solution:
Please check Tool(T) Syntax and the MAX is 99.

Remarks:
1. System support tool number 1~99;
2. T0, when supported by ATC, indicates that the tool is put back into the magazine.

3007: %s line %lu: Spindle speed (S) value exceeds the permissible range.

Solution:
Change the spindle speed to the appropriate range.

Remarks:

3009: %s L%lu: Radius of Arc is too small.

Solution:

Please modify the Radiu(R) of Arc.

Remarks:

The radius value specified by R is too small to construct an arc.

(End point coordinates - Start point coordinates) - (R radius) > Allowable error of arc radius
--

3012: %s L%lu: The arc instruction is not valid. It may be a specified radius error or a specified error in the current plane. The current plane:%s
--

Solution:

Please modify Arc Code, the difference must be smaller than Radius Tolerance.

Remarks:

In arc interpolation, the distance from the start point to the center of the arc is not equal to the distance from the end point to the center of the arc, and the error exceeds the "Allowable Error of Arc Radius".

3019: %s line %lu: NC program syntax error, wrong parameter.

Solution:

Refer to the instruction manual to specify the parameters correctly.
--

Remarks:

The specified parameter in the NC program does not meet the instruction definition requirements.
--

3020: %s L%lu: G/M code is conflicting in one line(%s).
--

Solution:

Please refer to Code Manual, modify NC Code.
--

Remarks:

An instruction combination conflict error occurred in a program block.
--

3021: %s L%lu: Illegal code(%s).

Solution:

Please refer to Code Manual, modify NC Code.
--

Remarks:

This error occurs when a non-existent NC command is specified.
--

3022: %s L%lu: Repeated Param(%s).

Solution:

Please refer to Code Manual, modify Param.
--

Remarks:

Specify parameter repetition in a program block.
--

3024: %s L%lu: Cann't cancel Scaling when Rotation.
--

Solution:

Please Cancel Rotation(G69) firstly, then Cancel Scalling(G50).

Remarks:

The Cancel Scale command (G50) displays this error when the Rotation command is valid.

3025: =%s L%lu: Cann't start Scaling when Rotation.

Solution:

Please Cancel Rotation(G69) firstly, then Start Scaling(G51).

Remarks:

Executing proportional scaling (G51) when the rotation instruction is valid displays this error.

3026: %s L%lu: Syntax error of M98.

Solution:

Please refer to Code Manual to use M98 correctly.

Remarks:

1. The P instruction appears at the same time as the O instruction;
2. When the L instruction is present, the P instruction is also greater than 10000;
3. O command is greater than 10000;
4. P or O instruction is less than 0.
5. Neither P nor O appears and there are no bracketed references to filenames;
6. L<0 or L>1000.

3027: %s L%lu: Syntax error of G65.

Solution:

Please refer to Code Manual to use G65 correctly.

Remarks:

1. There is no P instruction;
2. P command is greater than 9999;
3. P instruction is less than 0;
4. L<0 or L>1000.

3028: %s L%lu: Param of G04(DWELL) is wrong.

Solution:

Please refer to Code Manual to specify Param correctly.

Remarks:

3029: %s L%lu: System do not support G20(INCH).

Solution:

Please modify NC,avoid to use INCH.

Remarks:

3030=%s L%lu: Patam of Cylindrical Interpolation(G07.1) is wrong.

Solution:

Please refer to Code Manual to use G07.1, C is radius of cylinder, must be larger than zero, Y is not allowed.

Remarks:

3032: %s L%lu: Arc cann't be executed when scaling factor is different.

Solution:

Please specify the Same Scaling Factor for both Axes of Arc.

Remarks:

This error is displayed if you specify different scaling multipliers for each axis when executing the scale command.

3033=%s L%lu: Angle(R) is invalid for Coord Rotation.

Solution:

Please modify R, the angle must be 180 degree when the plane of Coord Rotation is different from the plane of Arc.

Remarks:

When the plane of the arc is not the same as the plane of rotation, the arc can only be rotated in 180 degrees.

3035: %s L%lu: Radius Comp.(D) Number is wrong.

Solution:

Please confirm Radius Comp.(D) is correct.

Remarks:

1. Valid correction numbers are 1 to 99;
2. D0 indicates that the current tool make-up is canceled.

3036: %s L%lu: Length Comp.(H) Number is wrong.

Solution:

Please confirm Length Comp.(H) is correct.

Remarks:

1. Valid correction numbers are 1 to 99;
2. H0 indicates that the current tool complement is canceled.

3037=%s L%lu: FeedRate(F) or Spindle(S) is wrong.

Solution:

Please modify NC, Feedrate(F) and Spindle(S) must be larger than Zero.

Remarks:

3042: %s line %lu: This command is not valid in the ZX plane and YZ plane.

Solution:

Refer to the instruction manual for the correct designation of the make-up plane.

Remarks:

3043: %s line %lu: Cannot switch planes in coordinate rotation mode.

Solution:

Please modify the NC program to avoid switching planes.

Remarks:

3044: %s L%lu: Unable to change plane when Radius Comp. is activated.

Solution:

Please refer to Code Manual, modify the Plane.

Remarks:

3059: %s L%lu: Cann't cancel Mirror.

Solution:

Please Cancel Rotation(G69) and Cancel Scaling(G50) firstly, then Cancel Mirror(G50.1).

Remarks:

The Cancel Mirror Reflection command (G50.1) displays this error when the Rotate or Scale command is in effect.

3060: %s L%lu: Cann't activate Mirror.

Solution:

Please Cancel Rotation(G69) and Cancel Scaling(G50) firstly, then Start Mirror(G51.1).

Remarks:

This error is displayed when the Mirror Reflection instruction (G51.1) is executed while the Rotate or Scale instruction is in effect.

3064=%s L%lu: Sth. is wrong while reading file.

Solution:

Please confirm that UserDisk or MovableDisk is all right.

Remarks:

1. The file is not terminated, but the read data content is less than the specified size, i.e., file exception or device exception.

3065: %s L%lu: Length of line is too large.

Solution:

Please modify NC, the Max number of char is 255 at one line.

Remarks:

The program line is too long, exceeding 255 characters.

3066: %s L%lu: Cann't read from UserDisk or MovableDisk.

Solution:

Please confirm that UserDisk or MovableDisk is all right, or the File size is too large.

Remarks:

This error is displayed when data cannot be transmitted properly when data is input from an external device.

3067: %s L%lu: Lack of Program End(M30 or M02).

Solution:

Please modify NC, Add Program End(M30 or M02).

Remarks:

3068: %s L%lu: Lack of M99, or End with M30 in Subprog.

Solution:

Please confirm M99 at the end of sub program, or Enable [M30 RERUEN].

Remarks:

When the [Parameter]-[System] screen's [Main Program Return] is set to OFF, and you make a macro call (G65, G66) or a subroutine call (M98), and the subroutine is ended with M30, the error will be displayed at the end of the interpreting to the subroutine.

3069: %s L%lu: Block Number is out of range.**Solution:**

Please modify NC, Blocks are too many.

Remarks:

The number of program blocks calls the system allowable value of 2E8, exceeding will display this error.

3070: %s L%lu: Cann't open Main Program,the file is lost.**Solution:**

Please confirm that UserDisk or MovableDisk is all right, or the File size is too large.

Remarks:**3071: %s L%lu: Cann't open Sub Program.****Solution:**

Please confirm that UserDisk or MovableDisk is all right, or the File size is too large.

Remarks:**3072: %s L%lu: Seek File Error for Loop/Goto.****Solution:**

Please confirm NC and SubProg is correct.

Remarks:

1. The file failed to open;
2. Dynamic editing of documents by external processes;
3. Internal system logic errors.

3073=%s L%lu: Param of G54.1 is wrong.**Solution:**

Please refer to Code Manual, modify NC Program.

Remarks:

The P parameter can only be 1 to 54.

3074: %s L%lu: Too many M Code in one Line.**Solution:**

Please modify NC, M Code must be no more than 3 at one line.

Remarks:

3075: %s L%lu: Subroutine nesting is more than 10 layers.

Solution:

Please modify NC, Nest Layer must be no more than 10.

Remarks:

This error is displayed when the total number of subroutine macro calls (G65, G66, and G/M/T instruction macro calls) exceeds 10 during program execution.

3076: %s L%lu: Axis which does not support Mirror is exist.

Solution:

Please refer to AXES setting, Use Mirror correctly.

Remarks:

3077: %s L%lu: Axis which does not support Scaling is exist.

Solution:

Please refer to AXES setting, Use Scaling correctly.

Remarks:

3078: %s L%lu: Axis which does not support Rotation is exist.

Solution:

Please refer to AXES setting, Use Rotation correctly.

Remarks:

3080: %s line %lu: The specified parameter is missing from the proportional scaling or coordinate rotation instruction in the program block.

Solution:

Refer to the instruction manual to correctly set the parameters specified by the Scale Scaling or Coordinate Rotation instruction.

Remarks:

This error is displayed if the parameter P/I/J/K/R is missing when a proportional scaling instruction (G51) or coordinate rotation instruction (G68) is specified during program execution.

3081: s L%lu: Params is conflicting for Scaling(G51).

Solution:

Please modify Rotation Params, do not use P together with IJK.

Remarks:

Specifying a scaling instruction (G51) whose parameters P and IJK are specified at the same time displays this error.

3082: %s line %lu: In the program block, the linear machining instruction is formatted incorrectly.

Solution:

Refer to the instruction manual to delete the R, I, J, and K parameters from the G00 and G01 instruction blocks.

Remarks:

The circular move parameter IJKR is specified in the pointing move instruction.

3083=%s L%lu: Arc is wrong. Plane is mismatched or Planning is not supported.
<p>Solution: Please select Plane G17(XY), G18(ZX) or G19(YZ) for Circular interpolation, do not use Helical interpolation.</p> <p>Remarks: 1. During program implementation, the circular arc interpolation instruction specified on the current machining plane G17XY, G18ZX, or G19YZ is incorrect, specifying a circular center offset that is not on the current plane. 2. The user specifies the screw interpolation method, which cannot be supported by the system.</p>

3084: %s L%lu: Arc is wrong, G02/G03 CodeError.
<p>Solution: Please modify R or I,J,K to specify correct Arc.</p> <p>Remarks: Incorrectly specifying the center of the circle using the I, J, K, and R commands during program implementation will not correctly create the arc.</p>

3085: %s L%lu: Scaling Factor is too small.
<p>Solution: Please use P for all Axes or I,J,K for X,Y,Z seperately, and confirm that the value is permitted.</p> <p>Remarks:</p>

3086: %s L%lu: Radius of Arc is too small or zero.
<p>Solution: Please check IJK or R, Arc Radius can not be zero.</p> <p>Remarks:</p>

3087: %s L%lu: No FileName is specified for M98 or G65.
<p>Solution: Please specify the calling file when Marco Call(G65,G66) or Sub Program Call(G98).</p> <p>Remarks: This error is displayed when a macro call (G65, G66) and subroutine call (M98) instruction is issued and the call file is not specified.</p>

3088: %s L%lu: RTCP Machine Type is Wrong.
<p>Solution: Please specify RTCP Type.</p> <p>Remarks:</p>

3089: %s L%lu: Whole Circle can't be specified with R.
<p>Solution: Please use I, J, K to specify a whole circle.</p> <p>Remarks:</p>

3090: %s L%lu: Loop Counts(L)of G65, G66 or M98 is zero.
<p>Solution:</p>

Please set Param L no less than 1, and defaultly 1.

Remarks:

In the macro call, the L value of the Repeat Count parameter is specified in the range of 1 to 999, and this error is displayed if the above range is exceeded.

3091=%s L%lu: Start and End of Radius Comp. must be Linear.

Solution:

Please modify NC, Radius Comp. can only start or end by Linear.

Remarks:

3092=%s L%lu: Cann't use Direct Draw Dimension Programming.

Solution:

Please enable Direct Draw Dimension Programming, or contact the supplier.

Remarks:

3093=%s L%lu: Q of Composite-Cycle cann't be used in the middle of Direct Draw Dimension Programming.

Solution:

Please modify NC, avoid to specif Q in the middle of Direct Draw Dimension Programming.

Remarks:

3094=%s L%lu: Not Supported Code in RTCP.

Solution:

Please modify NC.

Remarks:

3095=%s L%lu: GMT Calling cann't be supported in Motion.

Solution:

Please delete GMT Call in Motion.

Remarks:

3096: %s L%lu: No EndPoint of Arc for R-Arc(G02/G03).

Solution:

Please modify X,Y,Z for Circular interpolation.

Remarks:

3097=%s L%lu: Unable to change WorkCoord. when Scaling, Mirror or Rotation.

Solution:

Please modify NC, Change Coord. when Scaling, Mirror and Rotation is Canceled.

Remarks:

3098: %s L%lu: Param of G04 is conflicting.

Solution:

Please Avoid to specify P and X at the same time.

Remarks:

3099: %s L%lu: NC Parser is abnormal.
--

Solution:

Please push [RESET] to clear error. If recurring, contact the supplier.

Remarks:

3101: %s L%lu: Lack of "=" in Macro Expression.
--

Solution:

Please add "=" in Macro Expression.

Remarks:

3104: %s L%lu: Param should be Integer.
--

Solution:

Please modify NC according to Code Manual.
--

Remarks:

ERROR, WARN, and GOTO followed by an argument must be integers.

3105: %s L%lu: Macro Variable is out of range or illegal.
--

Solution:

Please read Macro Variable Definition in Code Manual.

Remarks:

It is recommended that you refer to the macro function-variable classification table in the instruction manual for reasonable invocation;

Warning: We are not responsible for the consequences of improper calls.

3106: %s L%lu: END of WHILE is mismatched with DO.

Solution:

Please refer to Code Manual to modify NC for WHILE.

Remarks:

3107: %s L%lu: Lack of Judgment expression for WHILE or IF.
--

Solution:

Please add Logical Expression for WHILE or IF.
--

Remarks:

3108: %s L%lu: GOTO cann't jump into loop of DO..END.
--

Solution:

Please modify the Target of GOTO, cann't jump into DO..END Loop.
--

Remarks:

3109: %s L%lu: Macro Grammar Rrror.
--

Solution:

Please refer to Code Manual, use Marco Grammar correctly.

Remarks:

3111: %s L%lu: Code can not be in front of Special Macro Function.

Solution:

IF, GOTO, WHILE, END, DO, BREAK can not be at the same lint with other Macro statement.

Remarks:

(error, warn, sleep, cmd, cmdt, if, goto, while, end, do, break)
--

3112: %s L%lu: Cann't find N-Label or DO/END-Index.
--

Solution:

Please specify the Target for GOTO or DO..END.
--

Remarks:

3113: %s L%lu: Length of line is too large after Macro.
--

Solution:

Please reduce the length of one Line, no more than 250.

Remarks:

3114: %s L%lu: Sub program nest is out of range.

Solution:

Please modify NC, Nest Layer must be no more than 10.

Remarks:

This error is displayed when the total number of macro program calls (G65 and G66) exceeds 10 levels during program execution.
--

3115=%s L%lu: Calculation is wrong because of Invalid Macro Variable.
--

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

3116: %s L%lu: Customer Warning Message is too long.

Solution:

Please use Macro Grammar correctly according to Code Manual.
--

Remarks:

3118: %s L%lu: Macro Variable Value is overflowed.

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

- | |
|--|
| <ol style="list-style-type: none">1. Exceeding normal permissible values2. Tan's parameters are outside the range of -90 to 270 |
|--|

3119: %s L%lu: Invalid or Inexistent Macro Variable..
--

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

3120: %s L%lu: Illegal Macro Variable.

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

3121: %s L%lu: SyncAssign "==" can't operate Local Macro Variable.

Solution:

Please use Global Macro Variable to SyncAssign("==").

Remarks:

Synchronized assignment operations, disconnected from interpretation, on local variables can cause confusion in the interpretation logic.

3122=%s L%lu: Illegal Parameter for Direct Draw Dimension Programming.

Solution:

Please use A\C\R for Direct Draw Dimension Programming according to Code Manual.

Remarks:

3124: %s L%lu: Illegal format Specification of CRT.

Solution:

Please use CRT correctly according to Code Manual.

Remarks:

3141: %s L%lu: Macro variable is read only.

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

This macro variable is a read-only property.

3151: %s L%lu: Illegal Code is at the same line with Macro.

Solution:

Please specify Macro Func. alone.

Remarks:

3152: %s L%lu: Illegal usage of Break.

Solution:

Please modify NC, Break can only be used in DO..END.

Remarks:

3153: %s L%lu: Illegal Format of CMD or MTN.

Solution:

Please add Bracket for content in CMD and MTN.

Remarks:

3154: %s L%lu: Macro Variable or calculate value is overflowed.

Solution:

Refer to the instruction manual and modify the NC program according to the range of values specified by the system.

Remarks:

3155: %s L%lu: Invalid Macro Variable which is assigned.

Solution:

Please check whether Macro Variable is NULL or Undefined.

Remarks:

3156=%s L%lu: Illegal Format of Macro variable which is assigned.

Solution:

Macro Variable Number must be Integer, please modify NC.

Remarks:

3157: %s L%lu: No expression in bracket.

Solution:

Please use Macro Func. correctly according to Code Manual.

Remarks:

3158: %s L%lu: Invalid Value is specified.

Solution:

Please specify Value for Address.

Remarks:

3159: %s L%lu: Param of N or O must be Integer.

Solution:

Please specify N, O Param correctly.

Remarks:

3160: %s L%lu: Point('.') has no matched number.

Solution:

Please modify NC, Point('.') can only be used for decimal.

Remarks:

3161: %s L%lu: CRT Message is too long.

Solution:

Please modify NC, Length of CRT content can't be more than 250.

Remarks:

3162: %s L%lu: Lack of connectors("<<") among CRT.

Solution:

Please use CRT correctly according to Code Manual.

Remarks:

3163: %s L%lu: No "ENDL" for CRT.

Solution:

Please use CRT correctly according to Code Manual.

Remarks:

3165: %s L%lu: Param can not be Zero.

Solution:

Please modify NC, Params of ATAN and LN can not all be Zero.

Remarks:

3166: %s L%lu: Internal Macro Error.

Solution:

System can't support Macro Functions.

Remarks:

3201: %s L%lu: Macro Expression Error.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3202: %s L%lu: Illegal Macro Variable.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3203: %s L%lu: Brackets is mismatched.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3204: %s L%lu: Invaile or Undefined Macro Variable.

Solution:

Please use Macro Variable correctly according to Code Manual.

Remarks:

3207: %s L%lu: Interger Overflow.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

error,warn,goto,do...end,add,sub,mul

3208: %s L%lu: Floating-Point Overflow.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3209: %s L%lu: Divided by Zero.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3210: %s L%lu: Macro Syntax Error.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3211: =%s L%lu: Lack of Operand.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3212: %s L%lu: Param of Macro Function Error.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3213: %s L%lu: Param of SQRT Error.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3214: %s L%lu: Logic Comparative or Param Error in Judgement.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3215: %s L%lu: Lack of Bracket.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3216=%s L%lu: Lack of Bracket when Plus or Minus is before Macro Variable.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3217=%s L%lu: Illegal Bit Operator or Param Error.

Solution:

Please use Macro correctly according to Code Manual.

Remarks:

3220=%s line %lu: macro error, time variable miscalculated.

Solution:

Please refer to the macro function section of the instruction manual to write the program correctly.

Remarks:

3251=%s L%lu: G66 or Canned-Cycle can't be nested.

Solution:

Please modify NC, don't use G66 or Canned-Cycle in nesting.

Remarks:

3252=%s L%lu: G66 or Canned-Cycle can't be used in Motion under G66 or Canned-Cycle module.

Solution:

Please modify NC, don't use G66 or Canned-Cycle in Motion.

Remarks:

3253=%s L%lu: G66 can't be used under Canned-Cycle module.

Solution:

Please modify NC, don't use G66 under Canned-Cycle module.

Remarks:

3254=%s L%lu: Illegal K Param for Canned-Cycle.

Solution:

K Param must be between 0 and 1000.

Remarks:

3255=%s L%lu: Param Error for Canned-Cycle.

Solution:

Please specify Params correctly according to Code Manual.

Remarks:

3256=%s L%lu: G66 Syntax Error.

Solution:
Please use G66 correctly according to Code Manual.

Remarks:

3257=%s L%lu: No Canned-Cycle mode before G70/G71/G72.

Solution:
Please specify Canned-Cycle firstly.

Remarks:

3258=%s L%lu: Disallowed Code under Canned-Cycle module.

Solution:
Please specify the Allowed Code according to Code Manual.

Remarks:

3259=%s L%lu: Can not use Canned-Cycle under the current module.

Solution:
Please use Canned-Code correctly according to Code Manual.

Remarks:

3281=%s L%lu: Can not find P/Q for Composite-Cycle.

Solution:
Please use Composite-Cycle correctly according to Code Manual.

Remarks:

3282=%s L%lu: Param Error for Composite-Cycle.

Solution:
Mismatched Plane is possible, Plwase use Composite-Cycle correctly according to Code Manual.

Remarks:

3283=%s L%lu: Composite-Cycle cann't be Nested.

Solution:
Please use Composite-Cycle correctly according to Code Manual.

Remarks:

3284=%s L%lu: Failed to find the next line of G70.

Solution:
Please use Composite-Cycle correctly according to Code Manual.

Remarks:

3300: %s L%lu: PVT(G05.1) Code error, No Speed for Axis.
Solution: Please use PVT correctly according to Code Manual.
Remarks:

3301: %s L%lu: Lack of Param(P) for G05.1.
Solution: Please add P Param for PVT according to Code Manual.
Remarks:

3302: %s L%lu: Illegal Param(P) for G05.1.
Solution: Please select allowed P according to Code Manual.
Remarks:

3303=%s L%lu: Disallowed Module for PVT(G05.1).
Solution: Please select a reasonable PVT mode according to Code Manual.
Remarks: Allowed modes. g00/g01, g90, g21, g40, g80, g50, g69, g50.1, g20.1

3304=%s L%lu: Label(N) over of ranges or syntax error.
Solution: Please specify allowed value for N according to Code Manual.
Remarks:

3305: %s line %lu: The arc command uses both the IJK method to specify the center of the circle and the R method to specify the radius.
Solution: Please modify the NC program so that only one center and radius can be specified for the arc command.
Remarks:

3306: %s line %lu: Unsupported Motion extension instruction written in fixed loop instruction.
Solution: Please refer to the instruction manual to write the program correctly.
Remarks:

3307: %s line %lu: Unsupported instruction written in fixed loop instruction.
Solution:

Please refer to the instruction manual to write the program correctly.

Remarks:

3308: %s L%lu: Lack of END for DO..WHILE.

Solution:

Please modify NC according to Code Manual.

Remarks:

The While[] macro statement has no equivalent End.

3310: %s L%lu: G05.2 Code error, No Vector for Axis.

Solution:

Please use G05.2 correctly according to Code Manual.

Remarks:

3311: %s L%lu: Lack of Param(P) for G05.2.

Solution:

Please add P Param for G05.2 according to Code Manual.

Remarks:

3312: %s L%lu: Illegal Param(P) for G05.2.

Solution:

Please select allowed P according to Code Manual.

Remarks:

3313: %s L%lu: Disallowed Module for G05.2.

Solution:

Please select a reasonable G05.2 mode according to Code Manual.

Remarks:

Allowed modes: G00/G01, G90, G21, G40, G80, G50, G69, G50.1, G20.1

4001: %s L%lu: Internal Error of Radius Comp.

Solution:

Please contact the supplier.

Remarks:

4002: %s L%lu: Too many Not-Moving Blocks when Radius Comp.

Solution:

Please check setting [D.COMP NO-MOVING BLOCKS].

Remarks:

4003: %s L%lu: Path can't be calculated when Radius Comp.

Solution:

Please confirm the original path is correct.

Remarks:

4004: %s L%lu: Path Interference after Radius Comp.

Solution:
Please modify NC to avoid interferenc.

Remarks:

4005: %s L%lu: Path is broken off after Radius Comp.

Solution:
Please contact the supplier.

Remarks:

4006: %s L%lu: Illegal Compensation Type when Radius Comp.

Solution:
Please contact the supplier.

Remarks:

4007: %s L%lu: Illegal Block Number when Radius Comp.

Solution:
Please contact the supplier.

Remarks:

4008: %s L%lu: Two Blocks or More are necessary for Radius Comp.

Solution:
Please use Radius Comp. correctly.

Remarks:

4009=%s L%lu: Illegal Arc when Radius Comp.

Solution:
Please confirm the original path is correct.

Remarks:

4010: %s L%lu: No Linear when Start or Cancel Radius Comp.

Solution:
Please use Linear to start or cancel Radius Comp..

Remarks:

4012: %s L%lu: Whole Circle can not be specified by Radius(R).

Solution:
Please confirm the original path is correct.

Remarks:

4013: %s L%lu: No Moving Block for Cancel Radius Comp.

Solution:
Please confirm the original path is correct.

Remarks:

4014: %s L%lu: UnDefined Error for Radius Comp.

Solution:

Please contact the supplier.

Remarks:

4015: %s L%lu: Can not Change D when Radius Comp.

Solution:

Please Cancel Radius Comp. before changing D Number.

Remarks:

4016: %s L%lu: Disallowed Code when Radius Comp.

Solution:

Please delete disallowed Code in Radius Comp. according to Code Manual.

Remarks:

4017=%s L%lu: Can not Change Plane when Radius Comp.

Solution:

Please Cancel Radius Comp. before changing Plane.

Remarks:

4018=%s L%lu: Interference is possible after Radius Comp.

Solution:

Please modify Code of Start or End for Radiu Comp. to avoid Interference.

Remarks:

After interfering with the graphic reverse movement, the retreating blade section storms away.

4019=%s L%lu: Increment or Arc is dangerous.

Solution:

Please modify Code, confirm the Cancele-Moving to be safe.

Remarks:

The incremental move command or arc command is specified directly after the point backtool.

4501=%s L%lu: UnDefined Error for Composite-Cycle(CAM).

Solution:

Please use Composite-Cycle correctly according to Code Manual.

Remarks:

4502=%s L%lu: Param Error of Composite-Cycle.

Solution:

Please use Composite-Cycle correctly according to Code Manual.

Remarks:

4503=%s L%lu: Path is not monostone for Composite-Cycle.

Solution:

Please use Composite-Cycle correctly according to Code Manual.

Remarks:

4504=%s L%lu: StartPoint for Composite-Cycle is wrong, Interference is possible.

Solution:

StartPoint must be safe position to Workpiece in Composite-Cycle.

Remarks:

4551=%s line %lu: Arc command or unreasonable chamfer parameter specified in G01.

Solution:

Refer to the instruction manual to specify the G01 instruction correctly.

Remarks:

4552=%s line %lu: Chamfering/cornering does not support specifying movement in both axes at the same time.

Solution:

Refer to the instruction manual to specify the chamfering/cornering instruction correctly.

Remarks:

4553=%s line %lu: chamfer/corner subsequent move command that does not match the chamfer/corner command.

Solution:

Refer to the instruction manual and specify the movement instruction that matches the selected plane according to the direction of chamfering/cornering.

Remarks:

4554=%s line %lu: The chamfer/corner instruction is specified in the program segment for thread cutting.

Solution:

Cancel the thread cutting mode before specifying the chamfering/cornering command.

Remarks:

4555=%s line %lu: In between the instructions for chamfering/cornering, the plane selection instructions G17/G18/G19 are inserted.

Solution:

Please end the chamfer/corner command before changing the plane.

Remarks:

4556=%s line %lu: Non-G01 move command specifying chamfer/corner.

Solution:

The chamfering/cornering instruction can only perform G01 movement. Please modify the NC program to correctly specify the G01 movement instruction.

Remarks:

4557=%s line %lu: Move command is too short, chamfer/corner command may cause overcut.

Solution:

Please check the NC program and modify the length of the move command, or the distance of the chamfer/corner.

Remarks:

4558=%s line %lu: Direction of the chamfer/corner, opposite to the direction of the subsequent move command.

Solution:

Please check the NC program and modify the direction of chamfer/corner I/J/K/C/R.

Remarks:

4559=%s line %lu: chamfer/corner function other error.

Solution:

Please contact the supplier.

Remarks:

4560=%s line %lu: Cannot be calculated midway through canceling the direct entry of drawing dimensions.

Solution:

Do not cancel this function in the middle of a direct input command at the drawing size.

Remarks:

4561=%s line %lu: Missing endpoint coordinate command value and A angle command value, unable to generate path.

Solution:

Refer to the instruction manual and modify the NC program.

Remarks:

4562=%s line %lu: Missing A angle value to generate path.

Solution:

Refer to the instruction manual and modify the NC program.

Remarks:

4563=%s line %lu: Missing A angle value to generate path.

Solution:

Refer to the instruction manual and modify the NC program. For segments without end coordinate

input, the A angle of both segments must be specified.

Remarks:

4564=%s line %lu: The Drawing Dimensions Direct Entry command does not allow both C and R to be specified.

Solution:

Refer to the instruction manual and modify the NC program.

Remarks:

4565=%s line %lu: The intersection between two straight lines cannot be calculated.

Solution:

The angle value or end point coordinates are specified incorrectly, so modify the NC program.

Remarks:

4566=%s line %lu: The C parameter was specified incorrectly and a value less than 0 could not be specified.

Solution:

Please modify the NC program so that the chamfer size C cannot be less than 0.

Remarks:

4567=%s line %lu: The R parameter was specified incorrectly, a value less than 0 cannot be specified.

Solution:

Please modify the NC program so that the corner dimension R cannot be less than 0.

Remarks:

4568=%s line %lu: C/R parameter error or path error, cannot generate chamfer/corner.

Solution:

Refer to the instruction manual and modify the NC program.

Remarks:

4569=%s line %lu: Cannot cancel or end program midway through chamfer/corner or drawing dimension entry.

Solution:

Please complete the chamfer/corner or drawing dimension entry programming.

Remarks:

4570=%s line %lu: Cannot insert non-moving segments or disallowed program segments midway through chamfer/corner or drawing dimension entry.

Solution:

Please move the non-moving segment out of the chamfer/corner or drawing dimension entry programming.

Remarks:

4571=%s line %lu: Angle A cannot be calculated.

Solution:

The start and end points of a straight line are known and angle A cannot be calculated. Please modify the NC program.

Remarks:

5001=%s line %lu: G-ACC exception error.

Solution:

Please contact the supplier.

Remarks:

5002=%s L%lu: Illegal Param(P) for G-ACC.

Solution:

Please specify allowed P according to Code Manual.

Remarks:

5003=%s L%lu: Feedrate for G-ACC can't be Zero.

Solution:

Please specify allowed Feedrate according to Code Manual.

Remarks:

5004=%s L%lu: Path is broken off in G-ACC.

Solution:

Please contact the supplier.

Remarks:

5005=%s L%lu: Raius of Arc is Zero.

Solution:

Please use Circle correctly according to Code Manual.

Remarks:

5006=%s L%lu: The difference between radius of StartPoint and radius of EndPoint is too large.

Solution:

Please modify Circle, Radius must be not larger than [ARC TOLERANCE].

Remarks:

1. NC original path is incorrect;
2. The path generated by tool compensation is incorrect.

5007=%s L%lu: Internal Plane is wrong for G-ACC.

Solution:

Please contact the supplier.

Remarks:

5008=%s L%lu: Illegal Param for G-ACC.

Solution:

Please specify allowed Param for G-ACC according to Code Manual.

Remarks:

5009=%s L%lu: G-ACC Interface Abnormal Error.

Solution:

Please contact the supplier.

Remarks:

5010=%s L%lu: G-ACC is not enabled.

Solution:

Please check the setting of G-ACC [ACTIVATE].

Remarks:

5011=%s L%lu: Disallowed NC for G-ACC.

Solution:

Please specify allowed Code for G-ACC according to Code Manual.

Remarks:

5012=%s L%lu: Illegal G-ACC Param or Wrong Path(G%d-%04d).

Solution:

Please reduce Acc or modify NC.

Remarks:

5013=%s L%lu: G-ACC Param is Conflicting.

Solution:

Please specify allowed Params for G-ACC according to Code Manual.

Remarks:

5014=%s L%lu: Illegal Param(A,E,T) for G-ACC.

Solution:

Please modify the params for G-ACC according to Code Manual.

Remarks:

5015=%s L%lu: Cannot Change GACC Mode

Solution:

Please use G05P0 Close G-ACC firstly.

Remarks:

5016=%s L%lu: SPLITTING ARC is wrong.

Solution:

Please contact the supplier.

Remarks:

5018=%s L%lu: NO1. STANDARD AXIS ERROR.

Solution:

Please modify the params(1~3).

Remarks:

5019=%s L%lu: AC cannot be in same line with Arc.

Solution:

Please modify NC.

Remarks:

5020=%s L%lu: Soft Limit. X is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

5021=%s L%lu: Soft Limit. Y is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

5022=%s L%lu: Soft Limit. Z is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

5023=%s L%lu: Soft Limit. Z is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

5024=%s L%lu: Soft Limit. Z is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

5025=%s L%lu: Soft Limit. Z is over positive softlimit.

Solution:

Please modify NC or change Tool.

Remarks:

7001: %s L%lu: Parser Error for Breakpoint-Reverted.

Solution:

Please modify NC, then try again.

Remarks:

7002: %s L%lu: Can not do Breakpoint-Reverted in PVT code.

Solution:

Please re-select BPR starting, then try again.

Remarks:

7003: %s: Starting Breakpoint-Reverted is failed.

Solution:

Please confirm BPR is activated, or contact the supplier.

Remarks:

7004=%s: Current NCFile cann't do Breakpoint-Reverted.

Solution:

Please check current file is the Broken-File.

Remarks:

7010: %s: The status of Breakpoint-Reverted progress is error.

Solution:

Disallowed Code is possible, Please try again or give up.

Remarks:

7100: %s L%lu: Mismatched Module for Breakpoint-Reverted.

Solution:

Please check current file is the Broken-File.

Remarks:

7101: %s: Current NCFile cann't do Breakpoint-Reverted.

Solution:

Make sure that the current file is the one for which you want to perform breakpoint resumption.

Remarks:

7102: %s: Line mismatches with Broken Line for Breakpoint-Reverted.

Solution:

Please check current file is the Broken-File.

Remarks:

7103: Original %s mismatches with G%u Ext. Offset.
Solution: Please modify Ext. Coord. Offset, then try again.
Remarks:

7104: Original %s mismatches with G%u Work Offset.
Solution: Please modify Work Coord. Offset, then try again.
Remarks:

7105: Original %s mismatches with Angle of Coord. Rotation(G68).
Solution: Please modify G68 Rotation Angle, then try again.
Remarks:

7106: Original %s mismatches with Scale Factor of Scaling(G51).
Solution: Please modify G51 Scalling Factor, then try again.
Remarks:

7107: Original %s mismatches with Work Coord.(G92-Mill/G50-Lathe) State.
Solution: Please modify G92 Coord. Module, then try again.
Remarks:

7108: Original %s mismatches with Work Coord.(G92-Mill/G50-Lathe) Setting.
Solution: Please modify G92 Coord. Offset, then try again.
Remarks:

7109: Original %s mismatches with Selected Lable(N).
Solution: Please modify N Number, then try again.
Remarks:

7110: Original %s mismatches with Current NC Module.
Solution: Please modify G Module, then try again.
Remarks:

7111: Original %s mismatches with Mirror(G51.1) State.

Solution:

Please modify Mirror State, then try again.

Remarks:

7112: Original %s mismatches with Mirror(G51.1) State.

Solution:

Please modify Mirror State, then try again.

Remarks:

7113: Original %s mismatches with Rotation(G68) State.

Solution:

Please modify Mirror State, then try again.

Remarks:

7114: Original %s mismatches with Current StartPoint for Break-point Reverted.

Solution:

Please modify Start Position, then try again.

Remarks:

7115: Original %s mismatches with Current Mirror Center for Break-point Reverted

Solution:

Please modify Mirror Center Position, then try again.

Remarks:

7116: Original %s mismatches with Current Scaling Center for Break-point Reverted.

Solution:

Please modify Scalling Center Position, then try again.

Remarks:

7117: Original %s mismatches with Current Rotation Center for Break-point Reverted.

Solution:

Please modify Rotation Center Position, then try again.

Remarks:

8.2 Error Change History**Versions prior to 3.1.5.9, error message:****2101: %c axis drive error.**

Solution:

Please wait until the machine stops and then press reset to clear the error. If the error cannot be

cleared, confirm that the electrical connections are correct.

Remarks:

2102: %c axis motor overload error.

Solution:

Please press the [RESET] key to eliminate the alarm. If the error occurs repeatedly, please contact your supplier.

Remarks:

2103 = %c Axis following error is too large.

Solution:

Please press the [RESET] key to cancel the alarm. Please reduce the processing speed or decrease the multiplier.

Remarks:

1. Excessive machining load, check for proper machining conditions;
2. Machining speed is too fast, check that the feed rate and acceleration are not too high;
3. The control parameters do not match, please make sure that the statistics setting parameters have not been modified;
4. Excessive mechanical resistance, verify that there is no mechanical wear or lubrication problems;
5. If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2104: %c axis is in positive hard limit.

Solution:

Please confirm the moving direction, press and hold the [OT2] key, press [Reset] to eliminate the alarm, use the handwheel or JOG mode to move negatively to within the machine limit, and then release the [OT2] key.

Remarks:

2105: %c axis is in negative hard limit.

Solution:

Please confirm the moving direction, press and hold the [OT2] key, press [Reset] to eliminate the alarm, use the handwheel or JOG mode to move positively to within the machine limit, and then release the [OT2] key.

Remarks:

2106: %c axis system control error.

Solution:

Please press the [RESET] key to eliminate the alarm. If the error occurs repeatedly, please contact your supplier.

Remarks:

2107: %c axis is in hard limit.

Solution:

Please determine the direction of the hard limit, press and hold the [OT2] key, press [Reset] to eliminate the alarm, use the handwheel or JOG mode to move in the opposite direction of the limit to within the machine limit, and then release the [OT2] key.

Remarks:

1. Positive and negative hard limits in series.

2108: There is a loss of feedback pulses for the %c axis.

Solution:

Please switch to the home return mode to re-home this axis and contact your supplier.

Remarks:

1. Positive and negative hard limits in series.

2109 = %c axis integral overrun.

Solution:

Please press the [RESET] key to eliminate the alarm. If the error occurs repeatedly, please contact your supplier.

Remarks:

1. Positive and negative hard limits in series.

2140: Invalid %c axis.

Solution:

System parameters are incorrect, press the [Reset] key to eliminate the alarm.

Remarks:

If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2141: %c-axis servo disconnected

Solution:

Please press the [RESET] key to cancel the alarm.

Remarks:

1. Drive alarm;
2. Emergency stop not released;
3. In hard limits;
4. System fatal error;
5. The system registration code has expired.

2142: %c axis not made coarse phase.

Solution:

The error is automatically eliminated when the system is re-zeroed, if not, press the [Reset] key to eliminate the alarm.

Remarks:

If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2143: %c axis not done in fine phase.

Solution:

The error is automatically eliminated when the system is re-zeroed, if not, press the [Reset] key to eliminate the alarm.

Remarks:

If the alarm does not go away or the phenomenon occurs repeatedly, contact the supplier.

2144: %c axis is in positive soft limit.

Solution:

Please confirm the moving direction and use handwheel or JOG mode to move negatively to within the machine limit. Press the [RESET] key to eliminate the alarm.

Remarks:

2145: %c axis is in negative soft limit.

Solution:

Please confirm the moving direction and use handwheel or JOG mode to move positively to within the machine limit. Press the [RESET] key to eliminate the alarm.

Remarks:

2146: %c axis not done back to zero.

Solution:

Please switch to [Home Return] mode and select this axis for zero return action, the error will be canceled automatically after completion. If the error is not canceled, please press [Reset] key to cancel the alarm.

Remarks:

2147: %c axis following error warning.

Solution:

Please make sure that the operation is correct and ignore to continue. If the phenomenon occurs repeatedly, please contact the supplier.

Remarks:

2148: %c axis is in soft limit.

Solution:

Please confirm the direction of the soft limit and use the handwheel or JOG mode to move in the opposite direction of the limit to within the machine limit. Press the [RESET] key to eliminate the alarm.

Remarks:



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