#### MPE720 Version History

#### \*Release of Ver4.30A

#### 1. Upgrade from Ver. 4.30A to Ver. 4.31B

One function has been improved and twenty-four reported malfunctions have been corrected:

#### 1.1 Functional Improvement

#### 1.1.1 260IF

The ON delay timer function is added to delay the DUPMCID message transmission and CAN chip initialization after the power is turned ON when using a MP920 260IF as the master.

#### 1.2 Corrected Malfunctions

#### 1.2.1 Tuning Panel

The upper and lower limit checks were not executed on the input values.

#### 1.2.2 Menu Guidance Display

The menu guidance display did not appear on the status display field on the screen.

#### 1.2.3 PLC Import Tool Window

The data application information was not displayed in the PLC Import Tool Window.

#### 1.2.4 Transfer Function

At the All File Transfer (All File Comparison), the error "Could not find tag list and engineering unit" was sometimes detected.

#### 1.2.5 Transfer Function

When MP920 was used with a multiple CPUs system, the serial transmission definition (general-purpose serial transmission parameter setting) of the CPU2 was not transferred.

#### 1.2.6 Transfer Function

When comment data was transferred, the computer hang-up occurred because the obtained comment area for each drawing was insufficient.

#### 1. 2. 7 DWG Copy

When having tried to copy the drawing that was being executed online, the MPE720 was forcibly terminated without an error message.

#### 1.2.8 Motion Command

When a bit inversion command was used for the motion command IOW, the IOW command was not executed correctly.

#### 1.2.9 Servo Parameter

When allocation was made for the combination of SGDH\*\*\*N and SGD\*\*\*N in linear mode, the parameter of SGD\*\*\*N could not be saved.

#### 1.2.10 Quick Reference

In Quick Reference of new ladder editor, the registers offline could not be read/written.

#### 1. 2. 11 Cam Tool

When data was saved using the CamTool, the data file name on the title bar did not change.

#### 1.2.12 Transfer Function

When a Transfer Other Media → HD was executed, the new ladder editor started in the middle of operation. Then the error message "Accessed to the end of non-titled file" appeared and the transfer operation was cancelled.

#### 1.2.13 Verify

When two or more verify operations were made with a drawing opened in the new ladder editor, the number of # registers set in the DWG Properties changed to 0.

#### 1.2.14 Print in New Ladder Editor

When having tried to print registers or symbols in new ladder mode, the MPE720 was forcibly terminated.

#### 1. 2. 15 User Menu Manager

After a file was saved with the path whose name includes spaces in the User Menu Manager, it was impossible to open the definition file.

#### 1.2.16 Coil Forced ON/OFF

When the coil forced ON/OFF operation was made online in new ladder mode, the edition mark appeared on the screen.

#### 1.2.17 Folder Name

In File Manager Window, folder names with a space at the end were allowed for group folders, order folders, and PLC folders.

#### 1.2.18 Copy & Paste

With new ladder editor, the copy & paste command was executed on a nested command such as IF, While, and For with the scoping set to OFF, the command could not be pasted correctly.

#### 1.2.19 Installation

During the installation of an MPE720, canceling Ladder Works, CamTool, or CimScope created the MPE720 short-cut on Start menu.

#### 1.2.20 C Register Table

Saving the defined C register table while the MP940 was offline, a saving error occurred.

#### 1.2.21 C Register Table

When having copied the drawing read using a SEE command to a drawing of a different hierarchy, a copy error occurred and the copy destination was deleted.

#### 1.2.22 Transfer

After having executed All File Transfer HD→CPU in new ladder editor mode, opening a drawing online caused a warning.

#### 1.2.23 Transfer

After having transferred the verified drawing from HD to Other Media in new ladder editor, when the verified drawings are returned from Other Media to HD, the verified drawings became inconsistent files.

#### 1.2.24 File Manager

When using a WindowsNT running personal computer, unauthorized user cannot start the CamTool from the File Manager.

2. Upgrade from Ver. 4. 31B to Ver. 4. 41A

Seven functions have been improved and twelve reported malfunctions have been corrected:

#### 2.1 Functional Improvements

2.1.1 Newly Supported MP2000 Series Models
Ver. 4.41A supports MP2100, MP2300, and I02310.

#### 2.1.2 Application Converter

The tool to convert MP900 series applications to MP2000 series application is added.

#### 2.1.3 Additional functions of Cam Tool

Cam curves (reverse-trapecloid curve, recovery curve, reversed recovery curve) are added.

#### 2.1.4 MECHATROLINK-II Supported

Ver. 4.41A supports MECHATROLINK-II.

2.1.5 Cancellation of Ladder Automatic Generation Function for Motion Programs

The ladder automatic generation function of MP2000 series is cancelled.

2.1.6 Simple Absolute Infinite Length Position Control Function

The simple absolute infinite length position control function is added.

#### 2.1.7 Shortened Transfer Time

The register transfer speed is increased.

#### 2.2 Corrected Malfunctions

#### 2. 2. 1 CamTool

The printed graph was out of the printed scale for control graphs, characteristic curve graphs, and graph comparison.

#### 2.2.2 Tuning Panel

Copy & Paste operation in the tuning panel did not refresh the current value.

#### 2.2.3 Quick Reference

In new ladder editor mode, the symbols and comments registered in the Symbol Manager were not displayed in Quick Reference. (For symbol name of 8 bytes or more and comment of 48 bytes or more)

## 2.2.4 Interrupt Drawing and Ultrahigh-speed Drawing of MP940 The interrupt drawings and ultrahigh-speed drawings of MP940 could not be used in simple mode.

#### 2. 2. 5 DWG Copy

After having copied the drawing disabled in new ladder editor mode, the copied drawing was disabled on the display.

However, the drawing was actually being executed.

#### 2.2.6 Monitor of New Ladder Editor

Saving a program of the Tuning Panel, etc. when having been connected online and in new ladder editor mode stopped the monitor of the new ladder editor.

#### 2.2.7 Verify

When a real-number type numeric command was entered in the step before ASCBIN instruction, a program saving error was detected by verify function.

#### 2.2.8 New Ladder Editor

When a branch was added in an intricated rung, the system down occurred.

#### 2.2.9 Printing

The comment of 0 rung was not printed out in new ladder editor mode.

#### 2. 2. 10 Communications Process

Starting the MacAfee virus scan during communications process stopped the communications.

#### 2. 2. 11 CamTool

It was impossible to execute Delete Data command more than once in the CamTool data list.

#### 2. 2. 12 DWG Copy

When a drawing was copied, the table type program was not be copied.

3. Upgrade from Ver. 4. 41A to Ver. 4. 50A
Six functions have been improved and eleven reported malfunctions have been corrected:

#### 3.1 Functional Improvement

## 3.1.1 WindowsXP Supported Ver. 4.50A supports WindowsXP.

- 3.1.2 SERVOPACKs for Linear Servomotors Supported Ver. 4.50A supports  $\Sigma$  II series SERVOPACKs for linear servomotors.
- 3.1.3 Table Data Edition Function

  The created table definition can be modified in the table data.
- 3.1.4 Higher Speed for Coil Forced ON/OFF Process
  In new ladder editor mode, the speed for coil forced ON/OFF process at online debugging is increased.
- 3.1.5 Startup Delay Timer for MP2300 260IF-01 For using the MP2300 260IF-01 as the master, the timer function to delay the communication path setup timing is added.
- 3.1.6 Higher Speed for Verify Process

  The function to increase the speed for the verification process online in new ladder editor mode is added.
- 3.2 Corrected Malfunctions
- 3.2.1 Quick Reference

In new ladder editor mode, inputting a register type in the register list of Quick Reference did not change the register type until having changed "TYPE".

#### 3.2.2 Quick Reference

When having input a local register (DW) in the watch page of Quick Reference, the local register could be input in the empty field (the field no data had been registered), but it could not be overwritten in the field where the global (MW) had been input.

#### 3.2.3 Quick Reference

After having deleted a register displayed in the watch page of Quick Reference, the values of the registers displayed under the deleted register were not shifted up.

#### 3.2.4 MP940 Module Configuration Definition

For MP940 Module configuration definitions, Set - Default menu command in Counter Module Window did not function.

#### 3.2.5 Ladder Converter

Executing Convert command after having specified the PLC folder of the model different from the conversion source for the conversion destination caused the error "Different model". However, executing Convert command after having specified the PLC folder of the same model converted the drawing two times.

#### 3.2.6 New Ladder Editor

In new ladder editor mode, the drawing with read-out privilege higher than the user privilege level could copied.

#### 3.2.7 Symbol Manager

After the existing symbol had been modified and saved in the Symbol Manager Window in new ladder editor mode, the symbol before modification

and the modified symbol were displayed in the symbol list of ladder editor.

#### 3.2.8 New Ladder Editor

After having pressed the page UP key during edition of comments such as rung comment and program comment in new ladder editor mode, the next operation was disabled.

#### 3.2.9 New Ladder Editor

In new ladder editor mode, when having displayed the print preview of the drawing for which the current value collection was in progress after having logged on online, only the register values displayed before having opened the print preview window were displayed.

#### 3.2.10 Table Data

When "character string" was set for the data type in the table data attribute definition, the size could be input. However, up to 99999 (number of input digits: 5) was input and saved because no upper limit check was made.

#### 3.2.11 Print

When having printed a table data with the printing range set to 70 lines 11 columns or more, the data from 2nd page on were not printed out correctly.

#### 4. Upgrade from Ver. 4.50A to Ver. 4.51

One function has been improved and five reported malfunctions have been corrected:

#### 4.1 Functional Improvement

#### 4.1.1 SERVOPACKs for Linear Servomotors Supported

Ver. 4.51 supports  $\Sigma$  III series (SGDS-\*\*\*15) SERVOPACKs for linear servomotors.

#### 4.2 Corrected Malfunctions

#### 4.2.1 Servo Parameters

For SGDH (Ver. 33 or later), it was not possible to open the detail windows of the servo parameter Pn218 "Reference Pulse Multiplication Function Selection" and Pn513 "Input Signal Selection 6".

#### 4.2.2 Fixed Parameters

For MP2000 series SVB fixed parameters, the fixed parameter No.

14 "Negative Soft Limit Value" changed to an abnormal value after having changed the setting of the fixed parameter No. 29 "Motor Type" from rotary to linear.

#### 4.2.3 Monitor Parameters

The display of MP940 monitor parameter No. 57 "Encoder Position (lower) When Power Off" was abnormal.

#### 4.2.4 Servo Parameters

After having set the SGDS servo parameter Pn825 in the detail window and closed the window, a value different from the set value was displayed when the window was opened again.

#### 4.2.5 Print

The setting ranges of Pn007, Pn408, Pn515 and Pn825 were incorrect when the SGDS servo parameters were printed.

5. Upgrade from Ver. 4.51 to Ver. 4.52

Two functions have been improved and one reported malfunction has been corrected:

#### 5.1 Functional Improvement

#### 5.1.1 AN2900 and AN2910 Supported

Ver. 4.52 supports MECHATROLINK-  $\rm II\,distributed\,$  I/Os AN2900 and AN2910.

#### 5.1.2 OMRON Protocol Supported

Ver. 4.52 supports OMRON protocol using a MP2000 series Communication Module serial communications I/F.

#### 5.2 Corrected Malfunction

#### 5.2.1 Servo Parameters

In Servo Parameter Window, the input range of the selected parameter was incorrect.

- 6. Upgrade from Ver. 4.52 to Ver. 5.10
  Sixteen functions have been improved and thirteen reported malfunctions have been corrected:
- 6.1 Functional Improvement
- 6.1.1 Newly Supported MP2000 Series Models Ver. 5.10 supports MP2200 and MP2100M.
- 6.1.2 IO2320 Supported

  Ver. 5.10 supports MECHATROLINK-IIdistributed I/Os IO2320.
- 6.1.3 SVB-01 for MP2000 Series Supported Ver. 5.10 supports the option module SVB-01 for MP2200 and MP2300.
- 6.1.4 Supports AFMP01 for MP2000 Series Ver. 5.10 supports the option module AFMP-01 FOR MP2200 and MP2300.
- 6.1.5 CSIF-01 for MP2000 Series Supported

  Ver. 5.10 supports the option module CSIF-01 for MP2200 and MP2300.
- 6.1.6 YV250 Supported

  Ver. 5.10 supports the MECHATROLINK-II applicable MYVIS (YV250).
- 6.1.7 Parameter Pn48F for SGDS Polarity Detection
  The parameter Pn48F "Polarity Detection Verification Distance"
  for SGDS linear servomotors is added.
- 6.1.8 MP2000 Series Fixed Parameter No. 42
  The MP2000 series fixed parameter No. 42 "Feedback Speed Moving Average Time Constant" is added.
- 6.1.9 MP2000 Series Setting Parameter No. 22
  The MP2000 series setting parameter No. 22 "Secondly Speed Compensation" is added.

6.1.10 MP2000 Series Setting Parameter No. 3

The number of options in the MP2000 series setting parameter No. 3 "Function Setting 1" is increased.

#### 6.1.11 Transfer Function

The transfer menu is simplified.

6.1.12 Increased Speed of Transfer Process to External Media
The compression function for files to transfer to an external media such as FD from the MPE720 is added.

#### 6.1.13 Debug Operation for MP2000 Series

The debug operation function for MP2000 motion programs is added.

#### 6.1.14 Motion Commands for MP2000 Series

The MP2000 series motion commands VCR, VCS, TCR, TCS, SNGD, and SNGE are added.

6.1.15 Specifications of MP2000 Series Motion Command MSEE

The MSEE command for MP2000 series are modified: The number of times of execution and the address can be specified.

#### 6.1.16 Trace Manager

The Trace Manager that has totally renewed and improved data trace functions is equipped.

#### 6.2 Corrected Malfunctions

#### 6.2.1 Transfer

When having transferred drawings using a new ladder editor, some specific drawings became inconsistent files.

#### 6.2.2 Transfer

When having executed the continuous transfer offline, the Transfer Manager shut down.

#### 6.2.3 Symbol Manager

The registers for which symbols had been registered, were not displayed on the map though they were used in the program.

#### 6.2.4 Register Map

It was not possible to select the copied drawings on the Register Map.

#### 6.2.5 Motion Commands

When the travel amount for axis motion command was input in hexadecimal in the motion program, the value multiplied by 16 was set.

#### 6.2.6 CamTool

When having tried to transmit cam data to M register, some of the cam data were not transmitted.

#### 6.2.7 Application Converter

When having tried to convert a large size motion program application, the MPE720 was forcibly terminated during conversion.

#### 6.2.8 Transfer

With new ladder editor, the individual transfer of drawing transferred symbol database together with drawing.

#### 6.2.9 Consecutive Register Replace

Registers out of the specified range were replaced when having executed a consecutive register replacement.

#### 6.2.10 SERVOPACK Parameters

For SGDH SERVOPACK parameter Pn511, all the options in the detail window were disabled.

#### 6. 2. 11 Print

Setting an address with a number other than 0 at the end in "Start REG" in the register detail window for printing registers caused the register designation error.

#### 6.2.12 Motion Programs

For the motion program drawings with read-out privilege set to a level other than 0, overwriting was disabled in the motion programs with privilege set to 0 or higher level.

#### 6.2.13 New Ladder Editor

The symbol database was forcibly terminated due to insufficient buffer area for register map display.

7. Upgrade from Ver. 5.10 to Ver. 5.13

Six functions have been improved and twelve reported malfunctions have been corrected:

#### 7.1 Functional Improvements

#### 7.1.1 Inverter V7 Supported

Ver. 5.13 supports the MECHATROLINK-II applicable inverter V7.

#### 7.1.2 MP2100 PCI Reset Function

The PCI reset function is added for the MP2100 system definition.

#### 7.1.3 SVA-01 for MP2000 Series Supported

Ver. 5.13 supports the option module SVA-01 for MP2200 and MP2300.

#### 7.1.4 LIO-04 for MP2000 Series Supported

Ver. 5.13 supports the option module LIO-04 for MP2200 and MP2300.

#### 7.1.5 LIO-05 for MP2000 Supported

Ver. 5.13 supports the option module LIO-05 for MP2200 and MP2300.

#### 7.1.6 Fix Parameter No. 42 for MP2000 SVR

The fixed parameter No. 42 "Feedback Speed Moving Average Time Constant" is added for SVR for MP2000 series.

#### 7.2 Corrected Malfunctions

#### 7.2.1 Print

When having printed the fixed parameters after having selected the linear type as a motor type, the parameter names were not changed for those of linear servomotors.

#### 7.2.2 File Manager

It was impossible to log on after a communications error had occurred online.

#### 7.2.3 Transfer

Changing the transfer destination for All Transfer (Load) after having logged on in online caused an error.

#### 7. 2. 4 Copy

It was possible to copy the motion program whose read-out privilege was higher than that of the user who had logged on.

#### 7.2.5 Module Configuration Definition

With MP2000 series, the sub-slot was set to UNDEFINED in the Module Configuration Definition Window after the self-configuration, and the window was closed without having saved the setting. When the Module Configuration Definition Window was opened next time, it was in the status to wait for initialization.

#### 7.2.6 Cross Reference

With Cross Reference, M registers of user functions were not searched.

#### 7.2.7 Cross Reference

With Cross Reference, the objects to be searched from 2nd line on were not displayed.

#### 7.2.8 Timer Command

With new ladder editor, a LongWord size data could be specified for a set value of timer command.

#### 7.2.9 Cross Reference

With Cross Reference, a register not specified for the object to be searched was searched.

#### 7.2.10 Print

It was impossible to print correctly the MECHATROLINK communication definition with the transmission cycle set to 1.5 ms.

#### 7.2.11 Transfer

The SERVOPACK parameter of the servo axis allocated to the station No. 16 in MP2000 series MECHATROLINK allocation was not transferred.

#### 7. 2. 12 Transfer

The SERVOPACK parameter of the axis allocated to the option module SVB of MP2100M was not transferred.

8. Upgrade from Ver. 5. 13 to Ver. 5. 20

Six functions have been improved and eleven reported malfunction have been corrected:

#### 8.1 Functional Improvement

8.1.1 SGDS Parameter Pn1B5 "Gain Compensation Upper Limit 1"
The SGDS SERVOPACK parameter Pn1B5 "Gain Compensation Upper Limit
1" is added.

#### 8.1.2 Function "MLINK-SVW"

For new ladder editor, the system function "MLINK-SVW" is added.

#### 8.1.3 Function for Real-number Operation

For casting a real-number to a integer-number for MP2000 series, the setting to round off or cut off below decimal point is added in Ladder Properties Window.

#### 8.1.4 MP2000 Supports Stepping Motor Drivers

MP2000 series supports stepping motor driver for MECHATROLINK-I. "STP. \*\*\*"

#### 8.1.5 Function for Table Data

For MP2200 with expanded SRAM, the battery backup function for the table data storage destination is added.

#### 8.1.6 Function for Table Data

The function to import/export a table data to CSV file is added.

#### 8.2 Corrected Malfunctions

#### 8.2.1 Multiple Registers Replace

At replacement of multiple registers in new ladder editor mode, the registers in EXPRESSION command were not replaced.

#### 8.2.2 Print

When having printed Cross Reference, the data of parent drawings were not printed.

#### 8.2.3 Trace Manager

With the Trace Manager in conventional ladder editor mode, it was impossible to register the register selected on the ladder editor.

#### 8. 2. 4 Trace Manager

It was impossible to maximize the size of graph display and list display at once in the Trace Manager Window.

#### 8.2.5 Trace Manager

The scale of the graph did not change in the graph display of Trace Manager after having changed the number of data in the list display.

#### 8.2.6 Trace Manager

After having registered the system register in the Trace Manager, the comments of the previous register remained although the register was changed.

#### 8. 2. 7 Trace Manager

After having set an USB connected device for the export destination in Trace Data, it was impossible to disconnect the set device without having closed the Trace Manager.

#### 8.2.8 Trace Manager

With the center of the Y-axis fixed to zero, and the scale not changed, it is difficult to view in the Trace Manager if the data is not uniformly distributed

and consist of only large positive or negative values.

#### 8.2.9 Trace Manager

On the X-Y graph display in the Trace Manager, executing the linked motion of A and B pointers moved only A pointer.

#### 8. 2. 10 Trace Manager

The MP2200 was started offline. Clicking the variable selection button after having imported a trace data caused the forced termination of MPE720.

#### 8.2.11 Print

When having tried printing the trace definition in the Trace Manager, the previous data trace was printed out.

- 9. Upgrade from Ver. 5. 20 to Ver. 5. 22 Seven functions have been improved and seven reported malfunctions have been corrected:
- 9.1 Functional Improvements
- 9.1.1 CPU Incorporated SVB Supports Transmission Cycle 1.5 ms
  The CPU incorporated SVB for MP2100 and MP2300 supports the
  MECHATROLINK-II transmission cycle 1.5 ms.
- 9.1.2 D Register Clear Function When Power Turns ON For MP2000 series, the function to clear D registers when the power turns ON is added.
- 9.1.3 Function for SLAU Command

  The function to input double-length integer type data for SLAU instruction for MP2000 series is added.
- 9.1.4 217IF-01 Supports Communications Baud Rate 4800 bps
  The port 2 of option module 217IF-01 for MP2200 and MP2300 supports the baud rate 4800 bps.
- 9.1.5 MP2000 D0-01 Supported

  Ver. 5.22 supports the option module D0-01 for MP2200 and MP2300
- 9.1.6 Trace Manager
  The default setting at startup of data trace is changed to Trace Manager.
- 9. 1. 7 SERVOPACK Parameter

The default value of SERVOPACK SGDH-\*\*\*E+NS100 parameter Pn801 is changed to "Soft Limit Disabled".

- 9.2 Corrected Malfunctions
- 9.2.1 Symbol Definition

When having defined more than 16000 symbols in new ladder editor mode, the new ladder editor became busy.

#### 9.2.2 New Ladder Editor

With new ladder editor, the MPE720 terminated in abnormal end at file open or verity operation.

#### 9.2.3 Watch Page

The modification on the D register value of the function registered in bit type online was not reflected on the controller.

#### 9.2.4 New Ladder Editor

With new ladder editor, an application error occurred resulting in forced termination when having been editing a branch.

#### 9.2.5 Transfer

Though the saving to FLASH operation failed, the operation ended normally without an error message.

#### 9.2.6 All Transfer

Executing All Transfer did not transfer applications. (Only with Ver. 5.20)

#### 9.2.7 Motion Programs

With motion programs, saving a large size file caused forced termination of Engineering Manager.

#### 10. Upgrade from Ver. 5. 22 to Ver. 5. 30

Eleven functions have been improved and five reported malfunctions have been corrected:

#### 10.1 Functional Improvements

#### 10.1.1 USB Communication Supported

The Communication process supported USB communication.

#### 10.1.2 Communication Function

The Communication process stored in an icon tray.

#### 10.1.3 Communication Function

The check box of an end check message (display/undisplaying) was prepared for the end check message dialog of a communication process.

#### 10.1.4 Phase Compensation Setting System Bit

The motion parameter supported Phase compensation setting system bit.

#### 10.1.5 I02330 Supported

Ver. 5.30 supports the MECHATROLINK-II distributed I/Os IO2330.

#### 10.1.6 New Ladder Editor

From the result of teh register map of a new Ladder editor,

the functional addition which cooperates and perform a crossing reference function

was carried out.

#### 10.1.7 Window Size Improvement

About each window display of MPE720, unnecessary screen size is reduced.

#### 10.1.8 New Ladder Editor

The display classification selection default value of the register map on a new Ladder editor was changed into "the register currently used by the program".

#### 10.1.9 New Ladder Editor

The comment input was attained at the Expression command, IF command, and WHILE command of the new Ladder editor.

#### 10.1.10 C Language Program Supported

Ver. 5.30 supports the C language program.

#### 10.1.11 Motion Register Read/Write Function Supported

Ver. 5.30 supports the motion register read/write function.

#### 10.2 Corrected Malfunctions

#### 10.2.1 Correction of an English Resource

All of the English caption currently used, a dialog, and an error message were improved, and the place

whose notation is not right was corrected.

#### 10.2.2 New Ladder Editor

When a branch was added in an intricated rung, MPE720 was forcibly terminated by new Ladder verification operation.

#### 10.2.3 Motion Program

In a motion program, when the following Bit type logic operations are performed,

an operation result forcibly differs from specification.

#### 10.2.4 Module Configuration Definition

If D0-01 of MP2000 series are assigned by manual operation, even if it saves a detailed definition.

it dose not display the operation status.

#### 10.2.5 WindowsXP-SP2 Supported

When WindowsXP-SP2 was applied, the phenomenon which MPE720 will not start occurred.

#### 11. Upgrade from Ver. 5.30 to Ver. 5.31B

Seventeen functions have been improved and twelve reported malfunctions have been corrected:

#### 11.1 Functional Improvements

#### 11.1.1 MP2000 CPU-02 Supported

Ver. 5.31B supports the option module CPU-02 for MP2200.

#### 11.1.2 MP2000 215AIF-01 Supported

Ver. 5.31B supports the option module 215AIF-01 for MP2200 and MP2300

#### 11.1.3 MP2000 AI-01 Supported

Ver. 5.31B supports the option module AI-01 for MP2200 and MP2300

#### 11.1.4 Cross Reference

It changed that Messages were displayed when cross reference result was 0.

#### 11.1.5 New Ladder Editor

It is on FUNC on a ladder, or a SEE command, and REFER was added to the menu.

#### 11.1.6 Transfer

The default setting at individual transmission DWG and Function selection is changed to all selection states.

#### 11.1.7 Watch page

It changed so that a register could be added to arbitrary parts in the state on a watch page.

#### 11.1.8 New Ladder Editor

It has fitted the horizontal size of a command palette into frame size of a new ladder.

#### 11.1.9 Cross Reference

D register crossing reference was changed only for the target drawing so that it might consider as the candidate for reference.

#### 11.1.10 New Ladder Editor

It changed so that a complete diagram side might be put in block and a high-speed setup of it could be carried out.

#### 11.1.11 Transfer

At the time of package transmission, it will have improved so that a RUN/STOP state can be changed on this dialog.

#### 11.1.12 Print

It changes so that printing magnification common in an editor option can be set up.

#### 11.1.13 New Ladder Editor

The mode "displayed altogether" was made into the default in the present value monitor ability of Expression of a new ladder.

#### 11.1.14 Symbol manager

The functional improvement of which shall be used between an importing agency and symbol manager registration data

about the register/ symbol which overlaps at the time of import of external data was carried out so that it could choose.

#### 11.1.15 Transfer

It has improved the message in program comparison.

#### 11.1.16 New Ladder Editor

The ladder scroll function by the mouse wheel in a new ladder editor was supported.

#### 11.1.17 New Ladder Editor

It has improved the speed of disabled coil reference.

#### 11.2 Corrected Malfunctions

#### 11.2.1 Module Configuration Definition

When a specific module composition definition is saved, the expenditure speed at the time of position control of SVA will drop to 2/3.

#### 11.2.2 Motion program

As the target value and setting value of a motion command, a register with minus, and when use of the sequence command is carried out,

although MPE720 was able to be compiled.

#### 11.2.3 User function

When performing Function Refer, some from which a function name begins in A/L/H/I had the fault which cannot carry out the monitor of the present value monitor at the time of Refer to four classes of specification.

#### 11.2.4 New Ladder Editor

When file reference was performed, it was completed without displaying an actual reference result.

#### 11.2.5 Register list

When the sum total of the size of D register of each drawing exceeded 64 K bytes, there was fault as which a value is not displayed correctly.

#### 11. 2. 6 DWG copy

When copying a drawing by the old ladder, a different drawing from an object will be copied.

#### 11.2.7 New Ladder Editor

When the operation formula of two or more lines was described during an Expression command

and that from which an operation formula is changed with a real number type existed.

all other operations under Expression command had the fault to be calculated with a real number type.

#### 11.2.8 Monitor parameter of inverter

Even the multirole terminal inputs terminal 9 status-terminal 12 status of a monitor parameter do not come out on a detailed screen.

#### 11.2.9 Transfer

At the time of package transmission, while it had been fewer than the number as which the transmission number is displayed, it might end.

#### 11.2.10 Transfer

The table which removed the check is transmitted by individual transmission of table data.

#### 11.2.11 Communication Function

It is not likely to be able to communicate by the communication error's happening frequently according to the personal computer environment.

#### 11.2.12 Motion program

The error occurs when the program is preserved when two or more user functions are called by using the UFC instruction in the motion program.

#### 12. Upgrade from Ver. 5. 31B to Ver. 5. 32

Thirteen functions have been improved and eight reported malfunctions have been corrected:

#### 12.1 Functional Improvements

#### 12.1.1 ANYWIRE MECHATROLINK GATEWAY corresponded

It corresponded to the AnyWireGateWay module with MECHATROLINK of the MP2000 series.

#### 12.1.2 The processing when the file manager ends is improved.

When logoffging when the file manager ended, the starting application was ended. (The communication process, the cam tool, and ListManager are off the subject.)

#### 12.1.3 Motion instruction new addition

The specification of the MVS/MCC/MCW instruction is added by the MP2000 series and ACCMODE was added as a new instruction.

#### 12.1.4 Speed-up of new ladder screen update

Not to monitor the value now, and to renew only the drawing being displayed now, the drawing where minimization or the update was unnecessary changed.

#### 12.1.5 Function improvement concerning new ladder editor

When verify was executed with a new ladder, an amount of the STEP remainder and an over amount in the old ladder conversion were displayed.

#### 12.1.6 Function improvement concerning new ladder editor

The instruction only that was able to input it the sign none enabled the setting of the input with the sign among the new ladder instructions.

#### 12.1.7 For monitor information update waiting mode

In option SVB of the MP2000 series, it corresponded to the monitor information update waiting mode.

#### 12.1.8 Servo pack parameter display message improvement

The message when the parameter is preserved on the servo pack parameter screen has been improved.

#### 12.1.9 Electronic cam tool operation improvement

The FLASH preservation can have been executed from the message improvement when the electronic cam tool was forwarded and the forwarding operation of the cam tool.

#### 12.1.10 S register comment addition

The comment on SW15-SW19 was added by the comment on S register of the MP2000 series.

#### 12.1.11 Two or more register replace function improvement

When the two or more register replace function was executed, the register being registered by the symbol manager was substituted.

### 12.1.12 Network property Internet Protocol address input improvement of PLC information

It was made to be recognized by the decimal even if 0 was put on the input character when Internet Protocol address was input.

#### 12.1.13 Security function addition

The security function to the CF card of MP2200CPU-02 was added.

#### 12.2 Corrected Malfunctions

# 12.2.1 Two or more of new ladder register substitution defective operation When the two or more register substitution was executed with the expression of two or more lines described in the Expression instruction, the register of the second line or less was not correctly substituted.

12.2.2 Two or more of new ladder register substitution defective operation
When the two or more register substitution was executed when conditional
expressions such as IF and WHILE were used in a new ladder, substitution of the
register was not correctly done.

#### 12.2.3 Print trouble

If "Register" tab was selected and printed from the print manager, the print manager canceled occasionally.

#### 12.2.4 Trouble when communication process cancels

It terminated abnormally when "Application end" was selected from the icon in the communication process with a detailed, set screen opened occasionally.

#### 12.2.5 Trouble when MP940 media forwarding and comparing it

It failed in forwarding S drawing in forwarding between media with MP940 occasionally.

#### 12.2.6 Function drawing copy trouble

Trouble that the function name and the I/O setting become empty columns when copying it was found in the comment part including the line feed code.

#### 12.2.7 Trouble concerning print

The character shifted, and the print result garbled and was printed as time when constant table # and table M of the constant had been printed occasionally.

12.2.8 Trouble when application change and two or more registers are substituted When a long expression had been described while ordering Expression when it changed the application, and two or more registers were substituted, it canceled occasionally.

13. Upgrade from Ver. 5. 32 to Ver. 5. 33

Ten functions have been improved and four reported malfunctions have been corrected:

- 13.1 Functional Improvement
- 13.1.1 Setting item addition of a MPLINK module

On the 215AIF parameter setting screen of a MPLINK module, the setting minimum value of "communication round time" was changed into 5msec(s)->1msec.

13.1.2 MP2000 CNTR-01 Supported

Ver. 5.33 supports the option module CNTR-01 for MP2200/MP2300.

13.1.3 MP2000 A0-01 Supported

Ver. 5.33 supports the option module AO-01 for MP2200/MP2300.

13.1.4 MP2000 P0-01 Supported

Ver. 5.33 supports the option module PO-01 for MP2200/MP2300.

13.1.5 Parameter setting item change of a SVB module

The "CP-216" mode was removed from the choice among the communication systems which can be chosen on the parameter setting screen of a SVB module.

- 13.1.6 Bank-switching function of a servo pack (SGDS-\*\*\*) Supported

  Ver. 5.33 supports the bank-switching function of a servo pack (SGDS-\*\*\*).
- 13.1.7 Fixed parameter ability improvement of a motion parameter

By the selected instruction unit, the unit display of a fixed parameter was changed to the suitable thing. (in the time of SVB use, and the case of a linear type servo pack)

13.1.8 Specification Change of \*\*\*\*\*IO Module for MP2000

Input-and-Output Register Size Maximum Value of \*\*\*\*\*IO Module was Changed into 8WORD->16WORD.

- 13.1.9 Improvement about a motion program

  Check processing of the register range used in a motion program was added.
- 13.1.10 CNTR input improvement of LIO-01/02 module for MP2000

  The input mode of the cell in the CNTR input of LIO-01/02 module was changed.

#### 13.2 Corrected Malfunctions

#### 13.2.1 Fault about Crossing Search of Ladder

When Crossing Search of the Old Ladder was Performed by Specification between Drawings (Example: I\*), Specific Grandchild Drawing (\*99.\*) was not Searched.

#### 13.2.2 Fault about an I/O map display

When "VS-7Series" was assigned by link allotment of SVB, this module was displayed on the  $\rm I/0$  map screen.

#### 13.2.3 Fault about Motion Editor

When Saving Motion Program, Memory Leak Might Occur.

#### 13.2.4 Fault about an application converter

When MP920-02 was specified as a changing agency, the problem was in C register or quick reference data among the data converted to a conversion place. Above

14. Upgrade from Ver. 5.33 to Ver. 5.33A

Ten functions have been improved and three reported malfunctions have been corrected:

- 14.1 Functional Improvement
- 14.2 Corrected Malfunctions
- 14. 2. 1 MP930-\*\*/NSC30-\*\* Logon fault

When connecting with MP930-\*\*\*/NSC30-\*\*, specific PC have a high frequency of failures in on-line logon, this has been improved.

14.2.2 Screen display correction of an AnyWire module

Since the status screen of the AnyWire module of MP2000/NSC 50/60 had gone into the width of a grid correctly in a Japanese environment, this was corrected.

14.2.3 Name correction of the English parameter for an electronic cam tool
Since the item name of first row in the "parameter setting screen" in the
electronic cam tool (English-language edition) was "FollowerStart", it corrected
"MasterStart".

15. Upgrade from Ver. 5. 33A to Ver. 5. 33B

Ten functions have been improved and three reported malfunctions have been corrected:

- 15.1 Functional Improvement
- 15.1.1 Servo pack (SGDS-\*\*1\*) parameter Pn81F addition of functional improvement. Parameter of Pn81F (optional feature bit allotment function) were added to SGDS-\*\*1\*, it corresponded to this.
- 15.2 Fault correction
- 15. 2. 1 MP900 Fault at the time of detailed definition deletion of module composition When deletion of a module detailed definition of MP900 series was performed on-line, CPU might be downed.
- 15.2.2 Fault at the time of cable cutting rudder present on display
  In English-language edition Windows2000 environment, when the cable was cut
  during the present value display of a ladder, the engineering manager might freeze.
- 15.2.3 Fault of a quick reference of operation

  After performing "all data deletion" by the quick reference of on-line, operation becomes impossible when it was going to close the page.
- 15.2.4 Fault at the time of the page addition of a quick reference

  List page was newly added by an engineering manager's quick reference,
  garbage might remain in the added page.

16. Upgrade from Ver. 5. 33B to Ver. 5. 34

Ten functions have been improved and three reported malfunctions have been corrected:

- 16.1 Functional Improvement
- 16.1.1 Change of specification of register that can be used for motion Program

  It enabled it to use an A register by a MSEE command of a motion program and TIM command.
- 16. 1. 2 MP2000 216AIF-01 Supported

Ver. 5.34 supports the option module 216AIF-01 for MP2000 Series Controller.

16.1.3 MP2000 MPANLO-00 Supported

Ver. 5.34 supports the option module MPANLO-00 for MP2000 Series Controller.

16.1.4 MP2100/MP2100M BUSIF Supported

Ver. 5.34 supports the option module BUSIF for MP2100/MP2100M Controller.

16.1.5 Motion command addition

"Stored Parameter Write" command was newly added to the motion command.

16.1.6 Receive monitor time function addition of 217IF module.

In order to make variable the setting value of a recieve monitor time of serial data. it adds [recieve monitor time] function to 217IF definitions.

16.1.7 Stteping Motor Driver for Mechatrolink-2 Supported.

Ver. 5.34 supports the Stteping Motor Driver(for Mechatrolink-2) made by Oriental Motor Co..Ltd.

- 16.2 Corrected Malfunctions
- 16.2.1 The problem at the time of a main module UNDEFINED setup of MP2000 module composition.

When a main module was changed into UNDEFINED, there was a phenomenon in which one slot did not disappear among sub-module which carries out 2 slot use.

16.2.2 The problem at the time of on-line operation of MP2000 CNTR-01.

The unfixed value might be reflected in the setting value when CH was changed without pushing a "setting" button on-line.

#### 16.2.3 RIO-120 FLASH preservation trouble.

When RIO-120 was used in the old ladder mode, preservation & FLASH preservation cannot have been done.

#### 16.2.4 Fixed parameter print trouble.

When a fixed parameter of MP920SVA was printed, a negative direction soft limit was not printed.

#### 16.2.5 Delay timer display trouble when 260IF two or more racks are used.

The display of the delay timer was disable though the module was correctly attached when 260IF module was attached since the second rack.

#### 16.2.6 New ladder trouble correction (1)

When it was going to stick on the places (END runge etc.) it copy and stick the command of a drawing and is impossible and was going to close the drawing, the compile check screen was displayed.

#### 16.2.7 New ladder trouble correction (2)

When the key was broken by key allotment of an editor option after sorting and the price was done again by it, other key allotment might change.

#### 16.2.8 New ladder trouble correction (3)

The key changed even if it returned the key allotment changed from the initial state to the default by key allotment of an editor option might remain effective.

#### 16.2.9 New ladder trouble correction (4)

When it returned after creating the parallel circuit in brunch creation mode and attaching an outside brunch to an inside brunch, the error might occur.

#### 16. 2. 10 New ladder trouble correction (5)

When the drawing was opened and the "cuff of runge" (editor option) was changed, the position of an element might shift.

#### 16.2.11 Communication fault of communication process.

At the time of connection with CP9200, the communication error might occur depending on the personal computer.

This concludes my report.