Autonics
Sensors & Controllers

Controller Integrated 2-Phase Closed-Loop Stepper Motor System AiC-D Series

Library Manual

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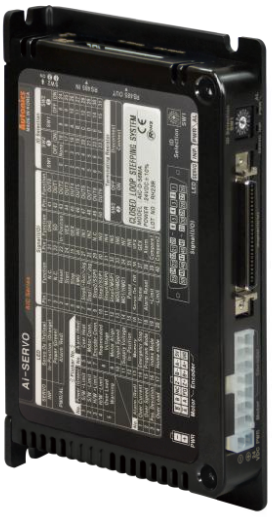

AiC-D Series

Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

Preface

Thank you for purchasing Autonics product.

Please familiarize yourself with the information contained in the Safety Precautions section before using this product.

This user manual contains information about the product and its proper use, and should be kept in a place where it will be easy to access.

User Manual Guide

Please familiarize yourself with the information in this manual before using the product.

- This manual provides detailed information on the product's features. It does not offer any guarantee concerning matters beyond the scope of this manual.
- This manual may not be edited or reproduced in either part or whole without permission.
- A user manual is not provided as part of the product package. Visit our web site (www.autonics.com) to download a copy.
- The manual's content may vary depending on changes to the product's software and other unforeseen developments within Autonics, and is subject to change without prior notice. Upgrade notice is provided through out homepage.
- We contrived to describe this manual more easily and correctly. However, if there are any corrections or questions, please notify us these on our homepage.

User Manual Symbols

Symbol	Description
 **Note**	Supplementary information for a particular feature.
 **Warning**	Failure to follow instructions can result in serious injury or death.
 **Caution**	Failure to follow instructions can lead to a minor injury or product damage.
 **Ex.**	An example of the concerned feature's use.
※1	Annotation mark.

Safety Precautions

- Following these safety precautions will ensure the safe and proper use of the product and help prevent accidents, as well as minimizing possible hazards.
- Safety precautions are categorized as Warnings and Cautions, as defined below:

⚠ Warning	Warning	Failure to follow these instructions may result in serious injury or death.
⚠ Caution	Caution	Failure to follow these instructions may result in personal injury or product damage.

⚠ Warning

- Fail-safe device must be installed when using the unit with machinery that maycause serious injury or substantial economic loss. (e.g. nuclear power control,medical equipment, ships, vehicles, railways, aircraft, combustion apparatus,safety equipment, crime/disaster prevention devices, etc.)
  Failure to follow this instruction may result in fire, personal injury, or economic loss.
- Do not connect, repair, or inspect the unit while connected to a power source.
  Failure to follow this instruction may result in fire.
- Install the unit after considering counter plan against power failure.
  Failure to follow this instruction may result in personal injury, or economic loss.
- Check 'Connections' before wiring.
  Failure to follow this instruction may result in fire.
- Do not disassemble or modify the unit.
  Failure to follow this instruction may result in fire.
- Install the driver in the grounded housing or ground it directly.
  Failure to follow this instruction may result in electronic shock, personal injury.
- Do not touch the unit during or after operation for a while.
  Failure to follow this instruction may result in burn due to high temperature of the surface.
- Emergency stop directly when error occurs.
  Failure to follow this instruction may result in fire, or personal injury.

⚠ Caution

- When connecting the power input, use AWG 18(0.75mm^2) cable or over.
- Brake is non-polar. When connecting the brake, use AWG 24 (0.2mm^2) cable or over.
  Failure to follow this instruction may result in fire or malfunction due to contact failure.
- To use the motor safely, do not apply external force to the motor.
- It is recommended to use STOPPER for the vertical load.
- Install over-current prevention device (e.g. the current breaker, etc) to connect the driver with power.
  Failure to follow this instruction may result in fire.
- Check the control input signal before supplying power to the driver.
  Failure to follow this instruction may result in personal injury or product damage by unexpected signal.
- Install a safety device to maintain the vertical position after turn off the power ofthis driver.
  Failure to follow this instruction may result in personal injury or product damage by releasing holding torque of the motor.

- Use the unit within the rated specifications.
  Failure to follow this instruction may result in fire or product damage.
- Use dry cloth to clean the unit, and do not use water or organic solvent.
  Failure to follow this instruction may result in fire.
- Do not use the unit in the place where flammable/explosive/corrosive gas, humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.
  Failure to follow this instruction may result in fire or explosion.
- The driver may overheat depending on the environment. Install the unit in the well ventilated place and forced cooling with a cooling fan.
  Failure to follow this instruction may result in product damage and degradation by heat.
- Keep metal chip, dust, and wire residue from flowing into the unit.
  Failure to follow this instruction may result in fire or product damage.
- Use the designated motor only.
  Failure to follow this instruction may result in fire or product damage.

The specifications and dimensions of this manual are subject to change and some models may be discontinued without notice.

Cautions during Use

- Follow instructions in 'Cautions during Use'.
  Otherwise, it may cause unexpected accidents.
- 24VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
- Re-supply power after min. 1 sec from disconnected power.
- In case communication is unstable due to the noise generated by supplied power or peripheral device, use ferrite core at communication line.
- It is recommended to use 485 converter with the separate power.
  (Autonics product, SCM-38I, recommended)
- The thickness of cable should be same or thicker than the motor cable's when extending the motor cable.
- Keep the distance between power cable and signal cable more than 10cm.
- Motor vibration and noise can occur in specific frequency period
  ①Change motor installation method or attach the damper.
  ②Use the unit out of the dedicated frequency range when vibration and noise occurs due to changing motor RUN speed.
- For using motor, it is recommended to maintenance and inspection regularly.
  ①Unwinding bolts and connection parts for the unit installation and load connection
  ②Strange sound from ball bearing of the unit
  ③Damage and stress of lead cable of the unit
  ④Connection error with motor
  ⑤Inconsistency between the axis of motor output and the center, concentric (eccentric, declination) of the load, etc.
- This product does not prepare protection function for a motor.
- This unit may be used in the following environments.
  ①Indoors (in the environment condition rated in 'Specifications')
  ②Altitude max. 2,000m
  ③Pollution degree 2
  ④Installation category II

Table of Contents

1 Reset

1.1 autaic_Open

This function, autaic_Open, is for connecting to communication.

(1) Function

```
int autaic_Open(
int PortNum,
int BaudRate,
int Parity,
int Stopbit
);
```

(2) Parameter

- PortNum: Enter serial port number to be connected.
- BaudRate: Enter baudrate of serial port.

Type	Input	Description	Constant value
AIC_BAUDRATE	AIC_BAUD_9600	9,600bps	9600
	AIC_BAUD_19200	19,200bps	19200
	AIC_BAUD_38400	38,400bps	38400
	AIC_BAUD_57600	57,600bps	57600
	AIC_BAUD_115200	115,200bps	115200

- Parity: Enter parity bit.

Type	Input	Description	Constant value
AIC_PARITY	AIC_PARITY_NONE	None	0
	AIC_PARITY_EVEN	Even	1
	AiC_PARITY_ODD	Odd	2

- Stopbit: Enter stop bit.

Type	Input	Description	Constant value
AIC_STOPBIT	AIC_STOPBIT_1	STOP BIT 1	0
	AIC_STOPBIT_2	STOP BIT 2	1

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.2 *autaic_SetBaudrate*

This function, autaic_SetBaudrate, is for changing baud rate.

(1) Function

```
int autaic_SetBaudrate(
int PortNum,
char nNodeId,
int iBaudrate
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.3 *autaic_SetParity*

This function, autaic_SetParity, is for changing parity bit.

(1) Function

```
int autaic_SetParity(
int PortNum,
char nNodeId,
int iParity
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

- iParity: Enter parity bit. (0: None, 1: Even, 2: Odd)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.4 *autaic_SetStopbit*

This function, autaic_SetStopbit, is for changing stop bit.

(1) Function

```
int autaic_SetBaudrate(
int PortNum,
char nNodeId,
int iStopbit
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

- iStopbit: Enter stop bit to be changed. (0: 1, 1: 2)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.5 *autaic_SetResponseTime*

This function, autaic_SetResponseTime, is for setting response time.

(1) Function

```
int autaic_SetResponseTime(
int PortNum,
char nNodeId,
int iTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

- iTime: Select the response wait time (1 to 99) of the drive.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.6 *autaic_SetReset*

This function, autaic_SetReset is for setting reset.

(1) Function

```
int autaic_SetReset(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.7 *autaic_SetALMReset*

This function, autaic_SetALMReset, is for resetting alarms.

(1) Function

```
int autaic_SetALMReset(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.8 *autaic_ClrActualPos*

This function, autaic_ClrActualPos, is for resetting actual coordinate value (actual motor position coordinate) as “0”.

(1) Function

```
int autaic_ClrActualPos(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

1.9 *autaic_ClrLogicalPos*

This function, autaic_ClrActualPos is for resetting command position coordinate value (motor position coordinate by command) as “0”.

(1) Function

```
int autaic_ClrLogicalPos(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

2 Stop, End

2.1 autaic_Close

This function, autaic_Close, is for disconnecting communication.

(1) Function

```
int autaic_Close(
int PortNum
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

2.2 *autaic_InstantStop*

This function, autaic_InstantStop, is for instant stopping without acceleration/deceleration.

(1) Function

```
int autaic_InstantStop(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

2.3 *autaic_SlowStop*

This function, autaic_SlowStop, is for decelerating and stopping according to the set deceleration time.

(1) Function

```
int autaic_SlowStop(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

2.4 *autaic_SetEmgStop*

This function, autaic_SetEmgStop, is for emergency stopping and generating emergency stop alarm.

(1) Function

```
int autaic_SetEmgStop(
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3 Parameter

3.1 General settings

3.1.1 autaic_SetLmtStopMod

This function, autaic_SetLmtStopMod, is for setting limit stop mode.

(1) Function

```
int autaic_SetLmtStopMod(
int PortNum,
char nNodeId,
BOOL bInstant
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.

- bInstant: Select stop method. (0: instant stop, 1: deceleration stop)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.2 autaic_SetSCurve

This function, autaic_SetSCurve, is for setting to use S Curve(S curve acceleration/deceleration) for AiC drive.

(1) Function

```
int autaic_SetSCurve (
int PortNum,
char nNodeId,
BOOL bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Select enable/disable of S Curve(S curve acceleration/deceleration). (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.3 autaic_SetInputFilter

This function, autaic_SetInputFilter, is for setting software filter of I/O except “IN7 to IN8”, “±Limit”, “ORG”, “SD”.

(1) Function

```
int autaic_SetInputFilter (
int PortNum,
char nNodeId,
BOOL bFilter
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bFilter: Select software filter value. (0: 10ms, 1: 1.5ms)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.4 autaic_SetSofLmtEnable

This function, autaic_SetSofLmtEnable, is for setting enable/disable of Software Limit(software limit).

(1) Function

```
int autaic_SetSofLmtEnable (
int PortNum,
char nNodeId,
BOOL bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Select enable/disable of Software Limit(software limit). (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.5 autaic_SetPowHomStart

This function, autaic_SetPowHomStart, is for home search automatically when power is ON.

(1) Function

```
int autaic_SetPowHomStart (
int PortNum,
char nNodeId,
BOOL bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bEnable: Select enable/disable of the command for home search automatically when power is ON. (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.6 autaic_SetPowPgmStart

This function, autaic_SetPowPgmStart, is for starting by the registered porgram when power is ON.

(1) Function

```
int autaic_SetPowPgmStart (
int PortNum,
char nNodeId,
BOOL bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bEnable: Select enable/disable of the command for starting program automatically when power is ON. (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.7 autaic_SetStopCurrentFix

This function, autaic_SetStopCurrentFix, is for setting fixed/not fixed stop current.

(1) Function

```
int autaic_SetStopCurrentFix (
int PortNum,
char nNodeId,
BOOL bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bEnable: Select fix/not fix of stop current. (0: Not fix, 1: Fix)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.8 autaic_SetInputStart

This function, autaic_SetInputStart, is for setting start signal to drive the set drive mode (index/ program mode)of AiC.

(1) Function

```
int autaic_SetInputStart (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select start signal level of index/program mode. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.9 autaic_SetInputStep0 / autaic_SetInputStep1

This function, autaic_SetInputStep0, is for setting Step0/+Run/+Jog (designate step 0/+continuous/+jog) input signal.

This function, autaic_SetInputStep1, is for setting Step1/-Run/-Jog(designate step 1/-continuous/-jog) input signal.

(1) Function: autaic_SetInputStep0

```
int autaic_SetInputStep0 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Function: autaic_SetInputStep1

```
int autaic_SetInputStep1 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select each logic level of Step0, 1/±Run/±Jog(designate step 0, 1/±continuous/±jog)

  (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.10 autaic_SetInputStep2 / autaic_SetInputStep3

This function, autaic_SetInputStep2, is for setting Step2/SSP0(designate step 2/start drive speed 0) input signal.

This function, autaic_SetInputStep3, is for setting Step3/SSP1(designate step 3/start drive speed 1) input signal.

(1) Function: autaic_SetInputStep2

```
int autaic_SetInputStep2 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Function: autaic_SetInputStep3

```
int autaic_SetInputStep3 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select each logic level of Step2, 3/SSP0, 1(designate step 2, 3/start drive speed 0, 1).
  (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.11 autaic_SetInputStep4 / autaic_SetInputStep5

This function, autaic_SetInputStep4, is for setting Step4/MSP0(designate step 4/max. drive speed 0) input signal.

This function, autaic_SetInputStep5, is for setting Step5/MSP1(designate step 5/max. drive speed 1) input signal.

(1) Function: autaic_SetInputStep4

```
int autaic_SetInputStep4 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Function: autaic_SetInputStep5

```
int autaic_SetInputStep5 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select each logic level of Step4, 5/MSP0, 1(designate step 4, 5/max. drive speed 0, 1). (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.12 autaic_SetInputMODE0 / autaic_SetInputMODE1

This function, autaic_SetInputMODE0, is for setting MD0/HMD0(drive mode 0/home search mode 0) input signal.

This function, autaic_SetInputMODE1, is for setting MD1/HMD1(drive mode 1/home search mode 1) input signal.

(1) Function: autaic_SetInputMODE0

```
int autaic_SetInputMode0 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Function: autaic_SetInputMODE1

```
int autaic_SetInputMode1 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select each logic level of MD0, 1/HMD0, 1(drive mode 0, 1/home search mode 0, 1).
  (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.13 autaic_SetInputPAUSE

This function, autaic_SetInputPAUSE, is for setting pause input signal.

(1) Function

```
int autaic_SetInputPAUSE (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of pause. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.14 autaic_SetInputSTOP

This function, autaic_SetInputSTOP, is for setting stop input signal.

(1) Function

```
int autaic_SetInputSTOP (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of stop. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.15 autaic_SetInputEMG

This function, autaic_SetInputEMG, is for setting EMG(emergency stop) input signal.

(1) Function

```
int autaic_SetInputEMG (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of EMG(emergency stop). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.16 autaic_SetInputHOME

This function, autaic_SetInputHOME, is for setting home(home search) input signal.

(1) Function

```
int autaic_SetInputHOME (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of Home(home search). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.17 autaic_SetInputALMReset

This function, autaic_SetInputALMReset, is for setting alarm reset input signal.

(1) Function

```
int autaic_SetInputALMReset (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of alarm reset. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.18 autaic_SetInputServoOn

This function, autaic_SetInputServoOn, is for setting Servo ON/OFF input signal.

(1) Function

```
int autaic_SetInputServoOn (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of Servo ON/OFF signal level. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.19 autaic_SetLmtActLev

This function, autaic_SetLmtActLev, is for setting ±Limit(± hardware limit) input signal.

(1) Function

```
int autaic_SetLmtActLev (
int PortNum,
char nNodeId,
BOOL bLmtActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bLmtActLev: Select signal level of ±Limit(±hardware limit). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.20 autaic_SetInputLev0 to autaic_SetInputLev8

This function, autaic_SetInputLev0 to autaic_SetInputLev8, is for setting IN0 to IN8(general input 0 to 8) input signal.

(1) Function

```
int autaic_SetInputLev0 to 8 (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of IN0 to IN8(general input 0 to 8). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.21 autaic_SetSDMode

This function, autaic_SetSDMode, is for setting SD(deceleration mode) input signal.

(1) Function

```
int autaic_SetSDMode (
int PortNum,
char nNodeId,
BOOL bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Select signal level of SD(deceleration mode). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.22 autaic_SetControlMode

This function, autaic_SetControlMode, is for setting control mode.

(1) Function

```
int autaic_SetControlMode (
int PortNum,
char nNodeId,
BOOL bMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bMode: Select the control mode. (0: Speed Filter, 1: Gain)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.23 autaic_SetMotorDir

This function, autaic_SetMotorDir, is for setting motro rotation direction.

(1) Function

```
int autaic_SetMotorDir (
int PortNum,
char nNodeId,
BOOL bDir
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bDir: Select motor rotation direction. (0: CW, 1: CCW)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.24 autaic_SetOutputMode

This function, autaic_SetOutputMode, is for setting output mode during alarm.

(1) Function

```
int autaic_SetOutputMode (
int PortNum,
char nNodeId,
BOOL bMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bMode: Select the output mode during alarm. (0: Maintain, 1: Reset)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.25 autaic_GetLmtStopMod

This function, autaic_GetLmtStopMod, is for loading the set value of parameter limit stop mode.

(1) Function

```
int autaic_GetLmtStopMod (
int PortNum,
char nNodeId,
BOOL *bInstant
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bInstant: Load the set value of parameter limit stop mode. (0: Instant, 1: Slow)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.26 autaic_GetSCurve

This function, autaic_GetSCurve, is for loading the enable/disable value of S Curve(S curve acceleration/deceleration) of the set parameter.

(1) Function

```
int autaic_GetSCurve (
int PortNum,
char nNodeId,
BOOL *bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bInstant: Load the enable/disable value of S Curve(S curve acceleration/deceleration). (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.27 autaic_GetInputFilter

This function, autaic_GetInputFilter, is for loading the filter value of I/O Input software of the set parameter.

(1) Function

```
int autaic_GetInputFilter (
int PortNum,
char nNodeId,
BOOL *bFilter
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bFilter: Load filter value of I/O Input software. (0: 10ms, 1: 1.5ms)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.28 autaic_GetSofLmtEnable

This function, autaic_GetSofLmtEnable, is for loading the enable/disable value of Software Limit(software limit) of the set parameter.

(1) Function

```
int autaic_GetSofLmtEnable (
int PortNum,
char nNodeId,
BOOL *bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Load the enable/disable value of Software Limit(software limit). (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.29 autaic_GetPowHomStart

This function, autaic_GetPowHomStart, is for loading the enable/disable value of home search automatically when power is ON of the set parameter.

(1) Function

```
int autaic_GetPowHomStart (
int PortNum,
char nNodeId,
BOOL *bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Load the enable/disable value of home search automatically when power is ON. (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.30 autaic_GetPowPgmStart

This function, autaic_GetPowPgmStart, is for loading the enable/disable value of program starts automatically of the set parameter.

(1) Function

```
int autaic_GetPowPgmStart (
int PortNum,
char nNodeId,
BOOL *bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Load the enable/disable value of program starts automatically. (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.31 autaic_GetStopCurrentFix

This function, autaic_GetStopCurrentFix, is for loading the enable/disable value of fixed/not fixed stop current of the set parameter.

(1) Function

```
int autaic_GetStopCurrentFix (
int PortNum,
char nNodeId,
BOOL *bEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bEnable: Load the enable/disable value of fixed/not fixed stop current. (0: Disable, 1: Enable)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.32 autaic_GetInputStart

This function, autaic_GetInputStart, is for loading the level value of start(drive start) input signal input signal of the set parameter.

(1) Function

```
int autaic_GetInputStart (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of start(drive start) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.33 autaic_GetInputStep0 / autaic_GetInputStep1

This function, autaic_GetInputStep0, is for loading the level value of Step0/+Run/+Jog (designate step 0/+continuous/+jog) input signal of the set parameter.

This function, autaic_GetInputStep1, is for loading the level value of Step1/-Run/-Jog (designate step 1/-continuous/-jog) input signal of the set parameter.

(1) Function: autaic_GetInputStep0

```
int autaic_GetInputStep0 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Function: autaic_GetInputStep1

```
int autaic_GetInputStep1 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the signal level value of Step0, 1/±Run/±Jog(designate step 0, 1/±continuous/±jog) input signal. (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.34 autaic_GetInputStep2 / autaic_GetInputStep3

This function, autaic_GetInputStep2, is for loading the level value of Step2/SSP0(designate step 2/start drive speed 0) input signal of the set parameter.

This function, autaic_GetInputStep3, is for loading the level value of Step3/SSP1(designate step 3/start drive speed 1) input signal of the set parameter.

(1) Function: autaic_GetInputStep2

```
int autaic_GetInputStep2 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Function: autaic_GetInputStep3

```
int autaic_GetInputStep3 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of Step2, 3/SSP0, 1(designate step 2, 3/start drive speed 0, 1) input signal. (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.35 autaic_GetInputStep4 / autaic_GetInputStep5

This function, autaic_GetInputStep4, is for loading the level value of Step4/MSP0(designate step 4/max. drive speed 0) input signal of the set parameter.

This function, autaic_GetInputStep5, is for loading the level value of Step5/MSP1(designate step 5/max. drive speed 1) input signal of the set parameter.

(1) Function: autaic_GetInputStep4

```
int autaic_GetInputStep4 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Function: autaic_GetInputStep5

```
int autaic_GetInputStep5 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of Step4, 5/MSP0, 1(designate step 4, 5/max. drive speed 0, 1) input signal. (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.36 autaic_GetInputMODE0 / autaic_GetInputMODE1

This function, autaic_GetInputMODE0, is for loading the level value of MD0/HMD0(drive mode 0/home search mode 0) input signal of the set parameter.

This function, autaic_GetInputMODE1, is for loading the level value of MD1/HMD1(drive mode 1/home search mode 1) input signal of the set parameter.

(1) Function: autaic_GetInputMODE0

```
int autaic_GetInputMODE0 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Function: autaic_GetInputStep5

```
int autaic_GetInputMODE1 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of MD0, 1/HMD0, 1(drive mode 0, 1/home search mode 0, 1) input signal (0: Low, 1: High)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.37 autaic_GetInputPAUSE

This function, autaic_GetInputPAUSE, is for loading the level value of pause input signal of the set parameter.

(1) Function

```
int autaic_GetInputPAUSE (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bActLev: Load the level value of pause input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.38 autaic_GetInputSTOP

This function, autaic_GetInputSTOP, is for loading the level value of stop input signal of the set parameter.

(1) Function

```
int autaic_GetInputSTOP (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of stop input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.39 autaic_GetInputEMG

This function, autaic_GetInputEMG, is for loading the level value of EMG(emergency stop) input signal of the set parameter.

(1) Function

```
int autaic_GetInputEMG (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bActLev: Load the level value of EMG(emergency stop) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.40 autaic_GetInputHOME

This function, autaic_GetInputHOME, is for loading the level value of home (home search) input signal of the set parameter.

(1) Function

```
int autaic_GetInputHOME (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of Home(home search) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.41 autaic_GetInputALMReset

This function, autaic_GetInputALMReset, is for loading the level value of alarm reset input signal of the set parameter.

(1) Function

```
int autaic_GetInputALMReset (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bActLev: Load the level value of alarm reset input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.42 autaic_GetInputServoOn

This function, autaic_GetInputServoOn, is for loading the level value of Servo ON/OFF input signal of the set parameter.

(1) Function

```
int autaic_GetInputServoOn (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of Servo ON/OFF input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.43 autaic_GetLmtActLev

This function, autaic_GetLmtActLev, is for loading the level value of ±Limit(±hardware limit) input signal of the set parameter.

(1) Function

```
int autaic_GetLmtActLev (
int PortNum,
char nNodeId,
BOOL * bLevel
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bLevel: Load the level value of ±Limit(±hardware limit) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.44 autaic_GetInputLev0 to autaic_GetInputLev8

This function, autaic_GetInputLev0 to autaic_GetInputLev8, is for loading the level value of IN0 to IN8(general input 0 to 8) input signal.

(1) Function

```
int autaic_GetInputLev0 to 8 (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load the level value of IN0 to IN8(general input 0 to 8) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.45 autaic_GetSDMode

This function, autaic_GetSDMode , is for loading the level value of SD(deceleration mode) input signal.

(1) Function

```
int autaic_GetSDMode (
int PortNum,
char nNodeId,
BOOL * bActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bActLev: Load the level value of SD(deceleration mode) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.46 autaic_GetControlMode

This function, autaic_GetControlMode, is for loading the set value of control mode.

(1) Function

```
int autaic_GetControlMode (
int PortNum,
char nNodeId,
BOOL * bMode
);
```

(2) Parameter

- PortNum : Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bMode: Load the set value of control mode. (0: Speed Filter, 1: Gain)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.47 autaic_GetMotorDir

This function, autaic_GetMotorDir , is for loading the set value of motor rotation direction.

(1) Function

```
int autaic_GetMotorDir (
int PortNum,
char nNodeId,
BOOL * bDir
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bDir: Load the set value of motor rotation direction. (0: CW, 1: CCW)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.48 autaic_GetOutputMode

This function,autaic_GetOutputMode, is for loading the set value of output mode during alarm.

(1) Function

```
int autaic_GetOutputMode (
int PortNum,
char nNodeId,
BOOL * bMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bMode: Load the set value of output mode during alarm. (0: Maintain, 1: Reset)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.1.49 autaic_GetBitSetGroup

This function,autaic_GetBitSetGroup, is for loading all data set values of the bit setting group.

(1) Function

```
int autaic_GetBitSetGroup (
int PortNum,
char nNodeId,
AIC_BITSET *pActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bActLev: Load all data set values of bit setting group.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2 Operation setting

3.2.1 autaic_SetInitStartSpd

This function,autaic_SetInitStartSpd, is for setting initial value of start drive speed (pps) for jog mode, continuous mode, absolute/relative position drive.

(1) Function

```
int autaic_SetInitStartSpd(
int PortNum,
char nNodeId,
long lStartSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lStartSpd: Set start drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.2 autaic_SetInitMaxSpd

This function,autaic_SetInitMaxSpd, is for setting initial value of max. drive speed (pps) for jog mode, continuous mode, absolute/relative position drive.

(1) Function

```
int autaic_SetInitMaxSpd(
int PortNum,
char nNodeId,
long lMaxSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lMaxSpd: Set max. drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.3 autaic_SetInitAccTime

This function,autaic_SetInitAccTime, is for setting initial value of acceleration time for jog mode, continuous mode, absolute/relative position drive.

(1) Function

```
int autaic_SetInitAccTime (
int PortNum,
char nNodeId,
int iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAccTime: Set acceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.4 autaic_SetInitDecTime

This function,autaic_SetInitAccTime, is for setting initial value of deceleration time for jog mode, continuous mode, absolute/relative position drive.

(1) Function

```
int autaic_SetInitDecTime (
int PortNum,
char nNodeId,
int iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDecTime: Set deceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.5 autaic_SetInitPosition

This function,autaic_SetInitPosition, is for setting initial value of position(target position) for absolute/relative position drive.

(1) Function

```
int autaic_SetInitPosition (
int PortNum,
char nNodeId,
long lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lPos: Set position(target position). (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.6 autaic_SetInitPgmStep

This function, autaic_SetInitPgmStep, is for setting initial value of start step for index mode, program mode drive.

(1) Function

```
int autaic_SetInitPgmStep (
int PortNum,
char nNodeId,
int iStep
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iStep: Set start step. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.7 autaic_SetInitDrvSet

This function, autaic_SetInitDrvSet, is for setting initial value of start drive speed (pps), max. drive speed (pps), acceleration time(msec), deceleration time(msec) for jog mode, continuous mode, absolute/relative position drive.

(1) Function

```
int autaic_SetInitDrvSet (
int PortNum,
char nNodeId,
long lStartSpd,
long lMaxSpd,
int iAccTime,
int iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lStartSpd: Set start drive speed. (Set range: 1 to 600,000)
- lMaxSpd: Set max. drive speed. (Set range: 1 to 600,000)
- iAccTime: Set acceleration time. (Set range: 1 to 10,000)
- iDecTime: Set deceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.8 autaic_SetStrSpdChg

This function, autaic_SetStrSpdChg, is for overriding start drive speed (pps) during drive.

(1) Function

```
int autaic_SetStrSpdChg (
int PortNum,
char nNodeId,
long lStartSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lStartSpd: Set start drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.9 autaic_SetMaxSpdChg

This function, autaic_SetMaxSpdChg, is for overriding max. drive speed (pps) during drive.

(1) Function

```
int autaic_SetMaxSpdChg (
int PortNum,
char nNodeId,
long lMaxSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lMaxSpd: Set max. drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.10 autaic_GetInitStartSpd

This function, autaic_GetInitStartSpd, is for loading the initial value of the set start drive speed (pps).

(1) Function

```
int autaic_GetInitStartSpd (
int PortNum,
char nNodeId,
long *IStartSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- IStartSpd: Load start drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.11 autaic_GetInitMaxSpd

This function, autaic_GetInitMaxSpd, is for loading the initial value of the set max. drive speed (pps).

(1) Function

```
int autaic_GetInitMaxSpd (
int PortNum,
char nNodeId,
long *IMaxSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- IMaxSpd: Load max. drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.12 autaic_GetInitAccTime

This function, autaic_GetInitAccTime, is for load the set value of acceleration time(msec).

(1) Function

```
int autaic_GetInitAccTime (
int PortNum,
char nNodeId,
long *iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iAccTime: Load acceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.13 autaic_GetInitDecTime

This function, autaic_GetInitDecTime, is for load the set value of deceleration time(msec).

(1) Function

```
int autaic_GetInitDecTime (
int PortNum,
char nNodeId,
long *iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iDecTime: Load deceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.14 autaic_GetInitPosition

This function, autaic_GetInitPosition, is for loading the initial value of the set target position.

(1) Function

```
int autaic_GetInitPosition (
int PortNum,
char nNodeId,
long *lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Load target position. (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.15 autaic_GetInitPgmStep

This function, autaic_GetInitPgmStep, is for loading the initial value of the start step for index mode, program mode drive.

(1) Function

```
int autaic_GetInitPgmStep (
int PortNum,
char nNodeId,
long *iStep
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iStep: Load start step. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.16 autaic_SetStartDrvSpd1 to autaic_SetStartDrvSpd5

This function, autaic_SetStartDrvSpd1 to autaic_SetStartDrvSpd5, is for setting start drive speed 1 to 5 of the parameter.

(1) Function

```
int autaic_SetStartDrvSpd1 to 5 (
int PortNum,
char nNodeId,
long lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lDrvSpd: Set start drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.17 autaic_SetMaxDrvSpd1 to autaic_SetMaxDrvSpd5

This function, autaic_SetMaxDrvSpd1 to autaic_SetMaxDrvSpd5, is for setting max. drive speed 1 to 5 of the parameter.

(1) Function

```
int autaic_SetMaxDrvSpd1 to 5 (
int PortNum,
char nNodeId,
long lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lDrvSpd: Set max. drive speed. (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.18 autaic_SetDelayTime1 to autaic_SetDelayTime5

This function, autaic_SetDelayTime1 to autaic_SetDelayTime5, is for setting wait time for executing next step after completing the step.

For TIM(wait) command, selec one among delay time 1 to 5.

(1) Function

```
int autaic_SetDelayTime1 to 5 (
int PortNum,
char nNodeId,
int iDTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDTime: Set wait time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.19 autaic_SetAccTime1 to autaic_SetAccTime5

This function, autaic_SetAccTime1 to autaic_SetAccTime5, is for setting acceleration time(msec) of the parameter.

(1) Function

```
int autaic_SetAccTime1 to 5 (
int PortNum,
char nNodeId,
int iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAccTime: Set acceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.20 autaic_SetDecTime1 to autaic_SetDecTime5

This function, autaic_SetDecTime1 to autaic_SetDecTime5, is for setting deceleration time(msec) of the parameter.

(1) Function

```
int autaic_SetDecTime1 to 5 (
int PortNum,
char nNodeId,
int iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iDecTime: Set deceleration time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.21 autaic_SetSCurvTime

This function, autaic_SetSCurvTime, is for setting S curve time(S curve acceleration/ deceleration time) of the parameter.

(1) Function

```
int autaic_SetSCurvTime (
int PortNum,
char nNodeId,
int iSCTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iSCTime: Set S curve Time(S curve acceleration/deceleration time). (Set range: 1 to 5,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.22 autaic_SetSoftLmtPlus

This function, autaic_SetSoftLmtPlus, is for setting high limit value of clock direction software limit.

(1) Function

```
int autaic_SetSofLmtPlus (
int PortNum,
char nNodeId,
long lSofLmtP
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lSofLmtP: Set high limit value of software limit. (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.23 autaic_SetSoftLmtMinus

This function, autaic_SetSoftLmtMinus, is for setting low limit value of counter clock direction software limit.

(1) Function

```
int autaic_SetSofLmtMinus (
int PortNum,
char nNodeId,
long lSofLmtM
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lSofLmtM: Set low limit value of software limit. (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.24 autaic_SetONTime1 to autaic_SetONTime5

This function, autaic_SetONTime1 to autaic_SetONTime5, is for setting output port ON time(msec).
ON time setting is available with “OPC” command at program mode.

(1) Function

```
int autaic_SetONTime1 to 5 (
int PortNum,
char nNodeId,
int iONTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iONTime: Set output port ON time. (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.25 autaic_SetCompareMode1 / autaic_SetCompareMode2

This function, autaic_SetCompareMode1 / autaic_SetCompareMode2, is for setting comparison output mode.

(1) Function: autaic_SetCompareMode1

```
int autaic_SetCompareMode1 (
int PortNum,
char nNodeId,
int iMode
);
```

(2) Function: autaic_SetCompareMode2

```
int autaic_SetCompareMode2 (
int PortNum,
char nNodeId,
int iMode
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iMode: Set compare1, 2(compare output 1, 2) individually. (Set range: 0 to 3)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.26 autaic_SetCompare1PulseWidth/autaic_SetCompare2PulseWidth

This function, autaic_SetCompare1PulseWidth / autaic_SetCompare2PulseWidth, is for setting output signal width when compare 1, 2(comparison output 1, 2) is set as 3 individually.

(1) Function: autaic_SetCompare1PulseWidth

```
int autaic_SetCompare1PulseWidth (
int PortNum,
char nNodeId,
int iWidth
);
```

(2) Function: autaic_SetCompare2PulseWidth

```
int autaic_SetCompare2PulseWidth (
int PortNum,
char nNodeId,
int iWidth
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iWidth: Set the width (msec) of compare1, 2(comparison output 1, 2) output signal. (Set range: 1 to 1,000)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.27 autaic_SetCompare1Period / autaic_SetCompare2Period

This function, autaic_SetCompare1Period / autaic_SetCompare2Period, is for setting output signal period when compare 1, 2(comparison output 1, 2) is set as 3 individually.

(1) Function: autaic_SetCompare1Period

```
int autaic_SetCompare1Period (
int PortNum,
char nNodeId,
long lPeriod
);
```

(2) Function: autaic_SetCompare2Period

```
int autaic_SetCompare2Period (
int PortNum,
char nNodeId,
long lPeriod
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPeriod: Set the period (pulse) of compare1, 2(comparison output 1, 2) output signal. (Set range: 1 to 2,147,483,647)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.28 autaic_SetCompare1Position / autaic_SetCompare2Position

This function, autaic_SetCompare1Position / autaic_SetCompare2Position, is for setting trgger output signal position when compare 1, 2(comparison output 1, 2) is set as 1 or 2 individually.

(1) Function: autaic_SetCompare1Position

```
int autaic_SetCompare1Position (
int PortNum,
char nNodeId,
long lPos
);
```

(2) Function: autaic_SetCompare2Position

```
int autaic_SetCompare2Position (
int PortNum,
char nNodeId,
long lPos
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Set the trigger output signal position. (Set range: -2,147,483,648 to 2,147,483,647)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.29 autaic_SetResolution

This function, autaic_SetResolution, is for setting resolution.

The pulses of 1 rotation input by resolution is 500, 1000, 1600, 2000, 3200, 3600, 5000, 6400, 7200, 10000.

(1) Function

```
int autaic_SetResolution (
int PortNum,
char nNodeId,
int iResolution
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iResolution: Set resolution(number of pulses per 1 rotation) of motor. (Set range: 0 to 9)

Set value	Pulses per 1 rotation (PPR)	Resolution
0	500	2.5
1	1000	5
2	1600	8
3	2000	10
4	3200	16
5	3600	18
6	5000	25
7	6400	32
8	7200	36
9	10000	50

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.30 autaic_SetMotorACtResp

This function, autaic_SetMotorACtResp, is for setting speed filter.

(1) Function

```
int autaic_SetMotorActResp (
int PortNum,
char nNodeId,
int iActResp
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iActResp: Set speed filter. (Set range: 0 to 15)

Set value	Delay time
0	Not used
1	2ms
2	4ms
3	6ms
4	8ms
5	10ms
6	20ms
7	40ms
8	60ms
9	80ms
10	100ms
11	120ms
12	140ms
13	160ms
14	180ms
15	200ms

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.31 autaic_SetStopCurrent

This function, autaic_SetStopCurrent, is for setting stop curent ratio value during stopping motor.

(1) Function

```
int autaic_SetStopCurrent (
int PortNum,
char nNodeId,
int iStopCrt
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iStopCrt: Set stop current for %. (Set range: 20 to 100%)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.32 autaic_GetStartDrvSpd1 to autaic_GetStartDrvSpd5

This function, autaic_GetStartDrvSpd1 to autaic_GetStartDrvSpd5, is for loading the set value of Start Speed1 to 5(start drive speed 1 to 5) of the parameter.

(1) Function

```
int autaic_GetStartDrvSpd1 to 5 (
int PortNum,
char nNodeId,
long *lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lDrvSpd: Save start speed(start drive speed). (1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.33 autaic_GetMaxDrvSpd1 to autaic_GetMaxDrvSpd5

This function, autaic_GetMaxDrvSpd1 to autaic_GetMaxDrvSpd5, is for loading the set value of Max Speed1 to 5(max. drive speed 1 to 5) of the parameter.

(1) Function

```
int autaic_GetMaxDrvSpd1 to 5 (
int PortNum,
char nNodeId,
long *lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lDrvSpd: Save max speed(max. drive speed). (1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.34 autaic_GetDelayTime1 to autaic_GetDelayTime5

This function, autaic_GetDelayTime1 to autaic_GetDelayTime5, is for loading the set value of Delay Time1 to 5 (wait time 1 to 5) of the parameter.

(1) Function

```
int autaic_GetDelayTime1 to 5 (
int PortNum,
char nNodeId,
int *iDTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDTime: Save delay time(wait time). (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.35 autaic_GetAccTime1 to autaic_GetAccTime5

This function, autaic_GetAccTime1 to autaic_GetAccTime5, is for loading the set value of acceleration time 1 to 5 of the parameter.

(1) Function

```
int autaic_GetAccTime1 to 5 (
int PortNum,
char nNodeId,
int *iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAccTime: Save acceleration time. (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.36 autaic_GetDecTime1 to autaic_GetDecTime5

This function, autaic_GetDecTime1 to autaic_GetDecTime5, is for loading the set deceleration time 1 to 5 of the parameter.

(1) Function

```
int autaic_GetDecTime1 to 5 (
int PortNum,
char nNodeId,
int *iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDecTime: Save deceleration time. (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.37 autaic_GetSCurvTime

This function, autaic_GetSCurvTime, is for loading the set value of S curve time(S curve acceleration/deceleration time) of the parameter.

(1) Function

```
int autaic_GetSCurvTime (
int PortNum,
char nNodeId,
int *iSCTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iSCTime: Save S curve time(S curve acceleration/deceleration time). (1 to 5,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.38 autaic_GetSofLmtPlus

This function, autaic_GetSofLmtPlus, is for loading the high limit set value of clock direction software limit of the parameter.

(1) Function

```
int autaic_GetSofLmtPlus (
int PortNum,
char nNodeId,
long *lSofLmtP
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lSofLmtP: Save high limit value of software limit. (-2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.39 autaic_GetSofLmtMinus

This function, autaic_GetSofLmtMinus, is for loading the low limit set value of counter clock direction software limit of the parameter.

(1) Function

```
int autaic_GetSofLmtMinus (
int PortNum,
char nNodeId,
long *lSofLmtM
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lSofLmtM: Save low limit value of software limit. (-2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.40 autaic_GetONTime1 to autaic_GetONTime5

This function, autaic_GetONTimea1 to autaic_GetONTime5, is for loading the set value of output port ON time 1 to 5 of the parameter.

(1) Function

```
int autaic_GetONTime1 to 5 (
int PortNum,
char nNodeId,
int *iONTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId
- Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iONTime: Save output port ON time. (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.41 autaic_GetCompareMode1 / autaic_GetCompareMode2

This function, autaic_GetCompareMode1 / autaic_GetCompareMode2, is for loading the set value of compare 1, 2(comparison output 1, 2) of the parameter.

(1) Function: autaic_GetCompareMode1

```
int autaic_GetCompareMode1 (
int PortNum,
char nNodeId,
int *iMode
);
```

(2) Function: autaic_GetCompareMode2

```
int autaic_GetCompareMode2 (
int PortNum,
char nNodeId,
int *iMode
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iMode: Save compare 1, 2(comparison output 1, 2). (0 to 3)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.42 autaic_GetCompare1PulseWidth/autaic_GetCompare2PulseWidth

This function, autaic_GetCompare1PulseWidth/autaic_GetCompare2PulseWidth, is for loaidng the set value of output signal width of compare 1, 2(comparison output 1, 2) of the parameter.

(1) Function: autaic_GetCompare1PulseWidth

```
int autaic_GetCompare1PulseWidth (
int PortNum,
char nNodeId,
int *iWidth
);
```

(2) Function: autaic_GetCompare2PulseWidth

```
int autaic_GetCompare2PulseWidth (
int PortNum,
char nNodeId,
int *iWidth
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iMode: Save signal width of compare 1, 2(comparison output 1, 2) output signal. (1 to 1,000)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.43 autaic_GetCompare1Period / autaic_GetCompare2Period

This function, autaic_GetCompare1Period/autaic_GetCompare2Period, is for loading the set value of output signal period of compare 1, 2(comparison output 1, 2).

(1) Function: autaic_GetCompare1Period

```
int autaic_GetCompare1Period (
int PortNum,
char nNodeId,
long *lPeriod
);
```

(2) Function: autaic_GetCompare2Period

```
int autaic_GetCompare2Period (
int PortNum,
char nNodeId,
long *lPeriod
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPeriod: Save output signal period (pulse) of compare 1, 2(comparison output 1, 2) (1 to 2,147,483,647)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.44 autaic_GetCompare1Position / autaic_GetCompare2Position

This function, autaic_GetCompare1Position/autaic_GetCompare2Position, is for loading the position set value of trigger output signal of compare 1, 2(comparison output 1, 2) of the parameter.

(1) Function: autaic_GetCompare1Position

```
int autaic_GetCompare1Position (
int PortNum,
char nNodeId,
long *lPos
);
```

(2) Function: autaic_GetCompare2Position

```
int autaic_GetCompare2Position (
int PortNum,
char nNodeId,
long *lPos
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lPos: Save position setting of trigger output signal of compare 1, 2(comparison output 1, 2).
  (-2,147,483,648 to 2,147,483,647)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.45 autaic_GetResolution

This function, autaic_GetResolution, is for loading the set value of resolution.

(1) Function

```
int autaic_GetResolution (
int PortNum,
char nNodeId,
int *iResolution
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iResolution: Save resolution(pulses per 1 rotation) of motor. (0 to 9)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.46 autaic_GetMotorActResp

This function, autaic_GetMotorActResp, is for loading the set value of speed filter of the parameter.

(1) Function

```
int autaic_GetMotorActResp (
int PortNum,
char nNodeId,
int *iActResp
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iActResp: Save speed filter. (0 to 15)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.47 autaic_GetStopCurrent

This function, autaic_GetStopCurrent, is for loading the set value of stop current for (%).

(1) Function

```
int autaic_GetStopCurrent (
int PortNum,
char nNodeId,
int *iStopCrt
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iStopCrt: Save stop current for (%). (20 to 100%)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.2.48 autaic_GetActGroup

This function, autaic_GetActGroup, is for loading all operation set value of the parameter.

(1) Function

```
int autaic_ActGroup (
int PortNum,
char nNodeId,
AIC_ACTGROUP *pAGroup
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pAGroup: Save operation parameter settings.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3 Home search setting

3.3.1 autaic_SetInitHomeRunMode

This function, autaic_SetInitHomeRunMode, is for setting the initial value of home search command types during home search drive.

(1) Function

```
int autaic_SetInitHomeRunMode (
int PortNum,
char nNodeId,
int iMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iMode: Select home search command type.

Set value	Home search
0	General home search
1	Limit home search
2	Zero point home search
3	Torque home search

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.2 autaic_GetInitHomeRunMode

This function, autaic_GetInitHomeRunMode, is for loading the set value of home search command types of the parameter.

(1) Function

```
int autaic_GetInitHomeRunMode (
int PortNum,
char nNodeId,
int *iMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iMode: Load home search command type.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.3 autaic_SetHomeMaxSpd

This function, autaic_SetHomeMaxSpd, is for setting Home Search High Speed(home search max. drive speed).

(1) Function

```
int autaic_SetHomeMaxSpd (
int PortNum,
char nNodeId,
long lHomeMaxSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lHomeMaxSpd: Set home search high speed(home search max. drive speed) (pps)

  (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.4 autaic_SetHomeStartSpd

This function, autaic_SetHomeStartSpd, is for setting Home Search Low Speed(home search start drive speed).

(1) Function

```
int autaic_SetHomeStartSpd (
int PortNum,
char nNodeId,
long lHomeStartSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lHomeStartSpd: Set home search low speed(home search start drive speed) (pps). (Set range: 1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.5 autaic_SetHomeAccTime

This function, autaic_SetHomeAccTime, is for setting home search acceleration time.

(1) Function

```
int autaic_SetHomeAccTime (
int PortNum,
char nNodeId,
int iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAccTime: Set home search acceleration time (msec) (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.6 autaic_SetHomeDecTime

This function, autaic_SetHomeDecTime, is for setting home search deceleration time.

(1) Function

```
int autaic_SetHomeDecTime (
int PortNum,
char nNodeId,
int iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDecTime: Set home search deceleration time (msec). (Set range: 1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.7 autaic_SetHomeDir

This function, autaic_SetHomeDir, is for setting motor rotation direction for home search drive.

(1) Function

```
int autaic_SetHomeDir (
int PortNum,
char nNodeId,
BOOL bDir
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bDir: Set motor rotation direction for home search drive. (0: clock direction, 1: counter clock direction)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.8 autaic_SetHomeOffset

This function, autaic_SetHomeOffset, is for moving for the set distance of home search offset and stopping after home search drive end.

(1) Function

```
int autaic_SetHomeOffset (
int PortNum,
char nNodeId,
long lOffset
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- lOffset: Set home search offset. (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.9 autaic_SetHomePos

This function, autaic_SetHomePos, is for changnig position value as Position Set (home search position) after home search drive.

(1) Function

```
int autaic_SetHomePos (
int PortNum,
char nNodeId,
long lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Set position set(home search position). (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.10 autaic_SetORGSigLev

This function, autaic_SetORGSigLev, is for setting input signal level of ORG(home sensor).

(1) Function

```
int autaic_SetORGSigLev (
int PortNum,
char nNodeId,
BOOL bLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bLev: Select input signal level of ORG(home sensor). (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.11 autaic_SetHomeTorque

This function, autaic_SetHomeTorque, is for setting home search torque during torque home search.

(1) Function

```
int autaic_SetHomeTorque (
int PortNum,
char nNodeId,
int iTorque
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iTorque: Set home search torque value (%). (Set range: 20 to 100%)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.12 autaic_GetHomeMaxSpd

This function, autaic_GetHomeMaxSpd, is for loading the set value of home search high speed(home search max. drive speed).

(1) Function

```
int autaic_GetHomeMaxSpd (
int PortNum,
char nNodeId,
long *lHomeMaxSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lHomeMaxSpd: Save home search high speed(home search max. drive speed). (1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.13 autaic_GetHomeStartSpd

This function, autaic_GetHomeStartSpd, is for loading home search low speed(home search start drive speed).

(1) Function

```
int autaic_GetHomeStartSpd (
int PortNum,
char nNodeId,
long *lHomeStartSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lHomeStartSpd: Save home search low speed(home search start drive speed).(1 to 600,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.14 autaic_GetHomeAccTime

This function, autaic_GetHomeAccTime, is for loading the set value of home search acceleration time.

(1) Function

```
int autaic_GetHomeAccTime (
int PortNum,
char nNodeId,
int *iAccTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- iAccTime: Save home search acceleration time. (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.15 autaic_GetHomeDecTime

This function, autaic_GetHomeDecTime, is for loading the set value of home search deceleration time.

(1) Function

```
int autaic_GetHomeDecTime (
int PortNum,
char nNodeId,
int *iDecTime
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDecTime: Save home search deceleration time. (1 to 10,000)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.16 autaic_GetHomeDir

This function, autaic_GetHomeDir, is for loading the set value of home search direction (motor rotation direction during home search).

(1) Function

```
int autaic_GetHomeDir (
int PortNum,
char nNodeId,
BOOL *bDir
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- bDir: Save home search direction(motor rotation direction during home search). (0: clock direction, 1: counter clock direction)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.17 autaic_GetHomeOffset

This function, autaic_GetHomeOffset, is for loading the set value of home search offset.

(1) Function

```
int autaic_GetHomeOffset (
int PortNum,
char nNodeId,
long *lOffset
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lOffset: Save home search offset. (-2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.18 autaic_GetHomePos

This function, autaic_GetHomePos, is for loading the set value of home search position (home search target position).

(1) Function

```
int autaic_GetHomePos (
int PortNum,
char nNodeId,
long *lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Save home search position (home search target position). (-2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.19 autaic_GetORGSigLev

This function, autaic_GetORGSigLev, is for loading the set value of ORG(home sensor) input signal signal level.

(1) Function

```
int autaic_GetORGSigLev (
int PortNum,
char nNodeId,
BOOL *bLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bLev: Save level setting of ORG(home sensor) input signal. (0: Low, 1: High)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.20 autaic_GetHomeTorque

This function, autaic_GetHomeTorque, is for loading the set value of home search torque.

(1) Function

```
int autaic_GetHomeTorque (
int PortNum,
char nNodeId,
int * iTorque
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iTorque: Save home search torque for (%). (20 to 100%)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

3.3.21 autaic_GetHomeGroup

This function, autaic_GetHomeGroup, is for loading all data set values of home search parameter group.

(1) Function

```
int autaic_GetHomeGroup (
int PortNum,
char nNodeId,
AIC_HOMEGROUP *pHGroup
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pHGroup: Save data setting of home search parameter group.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4 I/O Control

4.1 autaic_SetUserOut0 to autaic_SetUserOut9

This function, autaic_SetUserOut0 to autaic_SetUserOut0, is for ON/OFF general output 0 to 9 of I/O connector(CN3).

(1) Function

```
int autaic_SetUserOut0 to 9 (
int PortNum,
char nNodeId,
BOOL bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Select the status of general output 0 to 9 individuall. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

Note

There is no OUT 9 for AiC-D-B (built-in brake type).

4.2 *autaic_GetUserOut0 to autaic_GetUserOut9*

This function, autaic_GetUserOut0 to autaic_GetUserOut9, is for loading the status of general output 0 to 9 of I/O connector(CN3).

(1) Function

```
int autaic_GetUserOut0 to 9 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of general output 0 to 9. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

Note

There is no OUT 9 for AiC-D-B (built-in brake type).

4.3 *autaic_GetUserOutGroup*

This function, autaic_GetUserOutGroup, is for loading the status of general output of I/O connector(CN3).

(1) Function

```
int autaic_GetUserOutGroup (
int PortNum,
char nNodeId,
AIC_USEROUTPUTGROUP *pOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pOn: Save the status of all general outputs. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.4 autaic_exGetDrvStart

This function, autaic_exGetDrvStart, is for loading the status of start(drive start) of I/O connector(CN3).

(1) Function

```
int autaic_exGetDrvStart(
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the stauts of start(drive start). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.5 *autaic_exGetSTEPSL0 to autaic_exGetSTEPSL5*

This function, autaic_exGetSTEPSL0 to autaic_exGetSTEPSL5, is for loading the status of Step0/+Run/+Jog, Step1/-Run/-Jog, Step2/SSP0, Step3/SSP1, Step4/MSP0, Step5/MSP1 of I/O connector(CN3).

(1) Function

```
int autaic_exGetSTEPSL0 to 5 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn

  STEPSL0: Save the status of Step0/+Run/+Jog. (0: Off, 1: On)

  STEPSL1: Save the status of Step1/-Run/-Jog. (0: Off, 1: On)

  STEPSL2: Save the status of Step2/SSP0. (0: Off, 1: On)

  STEPSL3: Save the status of Step3/SSP1. (0: Off, 1: On)

  STEPSL4: Save the status of Step4/MSP0. (0: Off, 1: On)

  STEPSL5: Save the status of Step5/MSP1. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.6 autaic_exGetMODE0 / autaic_exGetMODE1

This function, autaic_exGetMODE0 / autaic_exGetMODE1, is for loading the status of MD0, 1/HMD0, 1 of I/O connector(CN3).

(1) Function: autaic_exGetMODE0

```
int autaic_exGetMODE0 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Function: autaic_exGetMODE1

```
int autaic_exGetMODE1 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of MD0, 1/HMD0, 1. (0: Off, 1: On)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.7 *autaic_exGetPause*

This function, autaic_exGetPause, is for loading the status of pause of I/O connector(CN3).

(1) Function

```
int autaic_exGetPause (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of pause. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.8 *autaic_exGetSlowStop*

This function, autaic_exGetSlowStop, is for loading the status of stop of I/O connector(CN3).

(1) Function

```
int autaic_exGetSlowStop (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of stop. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.9 *autaic_exGetEMGStop*

This function, autaic_exGetEMGStop, is for loading the stauts of EMG(emergency stop) of I/O connector(CN3).

(1) Function

```
int autaic_exGetEMGStop (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of EMG (emergency stop). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.10 *autaic_exGetHomeRun*

This function, autaic_exGetHomeRun, is for loading the status of Home(home search) of I/O connector(CN3).

(1) Function

```
int autaic_exGetHomeRun (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of Home(home search). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.11 *autaic_exGetORG*

This function, autaic_exGetORG, is for loading the status ORG(home sensor) of I/O connector(CN3).

(1) Function

```
int autaic_exGetORG (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of ORG(home sensor). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.12 *autaic_exGetALMReset*

This function, autaic_exGetALMReset, is for loading the status of alarm reset of I/O connector(CN3).

(1) Function

```
int autaic_exGetALMReset (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of alarm reset. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.13 *autaic_exGetServoOn*

This function, autaic_exGetServoOn, is for loading the status of Servo ON/OFF of I/O connector(CN3).

(1) Function

```
int autaic_exGetServoOn (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of Servo ON/OFF (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.14 *autaic_exGetLimitPlus*

This function, autaic_exGetLimitPlus, is for loading the stauts of +Limit(+ hardware limit) of I/O connector(CN3).

(1) Function

```
int autaic_exGetLimitPlus (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of +Limit(+ hardware limit). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.15 *autaic_exGetLimitMinus*

This function, autaic_exGetLimitMinus, is for loading the status of –Limit (-hardware limit) of I/O connector(CN3).

(1) Function

```
int autaic_exGetLimitMinus (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of -Limit(-hardware limit). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.16 *autaic_exGetUserInput 0 to autaic_exGetUserInput8*

This function, autaic_exGetUserInput 0 to autaic_exGetUserInput8, is for loading the status of general input 0 to 8 of I/O connector(CN3).

(1) Function

```
int autaic_exGetUserInput 0 to 8 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of general input 0 to 8. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.17 *autaic_exGetSDmode*

This function, autaic_exGetSDmode, is for loading the status of SD(deceleration mode) of I/O connector(CN3).

(1) Function

```
int autaic_exGetSDmode (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of SD(deceleration mode). (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.18 *autaic_exGetALMSignal*

This function, autaic_exGetALMSignal, is for loading the status of alarm output of I/O connector(CN3).

(1) Function

```
int autaic_exGetALMSignal (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of alarm output. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.19 *autaic_exGetInposition*

This function, autaic_exGetInposition, is for loading the status of In-Position output of I/O connector(CN3).

(1) Function

```
int autaic_exGetInposition (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of In-Position output. (0: Off, 1: On)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.20 autaic_exGetCompare1 / autaic_exGetCompare2

This function, autaic_exGetCompare1 / autaic_exGetCompare 2, is for loading the status of Compare 1, 2(comparison output 1, 2) of I/O connector(CN3).

(1) Function: autaic_exGetCompare1

```
int autaic_exGetCompare1 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(2) Function: autaic_exGetCompare2

```
int autaic_exGetCompare2 (
int PortNum,
char nNodeId,
BOOL *bOn
);
```

(3) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- bOn: Save the status of compare 1, 2(comparison output 1, 2). (0: Off, 1: On)

(4) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

4.21 *autaic_GetExInputGroup*

This function, autaic_GetExInputGroup, is for loading the status of all external input.

(1) Function

```
int autaic_GetBitSetGroup (
int PortNum,
char nNodeId,
AIC_BITSET *pActLev
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pActLev: Saves the status of all external input.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

5 Movement control

5.1 autaic_ContPulseCW

This function, autaic_ContPulseCW, is for ouputting drive pulse continuously to clock direction until entering stop command.

(1) Function

```
int autaic_ContPulseCW (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

5.2 *autaic_ContPulseCCW*

This function, autaic_ContPulseCCW, is for ouputting drive pulse continuously to counter clock direction until entering stop command.

(1) Function

```
int autaic_ ContPulseCCW (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

5.3 *autaic_ABSMove*

This function, autaic_ABSMove, is for moving to the absolute position for the designated distance based on the home.

(1) Function

```
int autaic_ABSMove (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

5.4 autaic_INCMove

This function, autaic_INCMove, is for moving to the relative position for the designated distance based on the current position.

(1) Function

```
int autaic_INCMove (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

5.5 *autaic_HomeModeRun*

This function, autaic_HomeModeRun, is for driving home search according to the the designated home search mode.

(1) Function

```
int autaic_HomeModeRun (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6 Program Control

6.1 autaic_IndexModeRun

This function, autaic_IndexModeRun, is for driving the selected one “ABS”, “INC” command step among program mode command.

(1) Function

```
int autaic_IndexModeRun (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.2 *autaic_PgmModeRun*

This function, autaic_PgmModeRun, is for driving program mode.
It dirves the saved each command from the designated step sequentially.

(1) Function

```
int autaic_PgmModeRun (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.3 *autaic_PgmPause*

This function, autaic_PgmPause, is for pausing the driving step as program mode after completing.

(1) Function

```
int autaic_PgmPause (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.4 *autaic_PgmStop*

This function, autaic_PgmStop, is for stopping the driving step as program mode after completing.

(1) Function

```
int autaic_PgmStop (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.5 *autaic_PgmABS*

This function, autaic_PgmABS, is for moving the absoulte position to the designated distance based on the home.

(1) Function

```
int autaic_PgmABS (
int PortNum,
char nNodeId,
int nStepNo,
int ParaStartSpd,
long StartSpd,
int ParaMaxSpd,
long MaxSpd,
int ParaAccel,
int Accel,
int ParaDecel,
int Decel,
long lPos,
BOOL SCurveEnable,
int iSCurvTime,
BOOL ContinueEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to register command. (Set range: 0 to 255)
- ParaStartSpd

  Enter start drive speed of parameter. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set start drive speed 1 to 5 parameter during motor drive.
  - 6 input
    : Drives with the entered start drive speed at StartSpd during motor drive.
- StartSpd: Enter start drive speed. (Set range: 1 to 600,000).
- ParaMaxSpd

  Enter max. drive speed. (Set range: 1 to 6).
  - 1 to 5 input
    : Drives with the set max. drive speed 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered max. drive speed at MaxSpd during motor drive.
- MaxSpd: Enter max. drive speed. (Set range: 1 to 600,000)
- ParaAccel
- Enter acceleration time. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set acceleration time 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered acceleration time at Accel during motor drive.
- Accel: Enter acceleration time. (Set range: 1 to 10000)
- ParaDecel

- Enter deceleration time. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set deceleration time 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered deceleration time of Decel during motor drive.
- Decel: Enter deceleration time. (Set range: 1 to 10000)
- lPos: Enter the coordinate to be moved. (Set range: -2,147,483,648 to 2,147,483,647)
- SCurveEnable

  Set enable/disable of S curve acceleration/deceleration. (0: Disable, 1: Enable)
- iSCurvTime

  For using S curve acceleration/deceleration, set S curve acceleration/deceleration time. (Set range: 1 to 5,000)
- ContinueEnable

  Set enable/disable of continuation.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.6 *aic_PgmINC*

This function, autaic_PgmStop, is for moving the relative position to the designated distance based on the current position.

(1) Function

```
int autaic_PgmINC (
int PortNum,
char nNodeId,
int nStepNo,
int ParaStartSpd,
long StartSpd,
int ParaMaxSpd,
long MaxSpd,
int ParaAccel,
int Accel,
int ParaDecel,
int Decel,
long lPos,
BOOL SCurveEnable,
int iSCurvTime,
BOOL ContinueEnable
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- ParaStartSpd

  Enter start drive speed. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set start drive speed 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered start drive speed at StartSpd during motor drive.
- StartSpd: Enter start drive speed. (Set range: 1 to 600,000)
- ParaMaxSpd

  Enter max. drive speed. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set max. drive speed 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered max. drive speed at MaxSpd during motor drive.
- MaxSpd: Enter max. drive speed. (Set range: 1 to 600,000)
- ParaAccel

  Enter acceleration time. (Set range: 1 to 6)
  - 1 to 5 input
    : Drives with the set acceleration time 1 to 5 during motor drive.
  - 6 input
    : Drives with the entered acceleration time at Accel during motor drive.
- Accel: Enter acceleration time. (Set range: 1 to 10000)
- ParaDecel

Enter deceleration time. (Set range: 1 to 6)

- 1 to 5 input
  : Drives with the set deceleration time 1 to 5 during motor drive.
- 6 input
  : Drives with the entered deceleration time at Decel during motor drive.

- Decel: Enter deceleration time. (Set range: 1 to 10000)
- lPos: Enter the coordinate to be moved..
  (Set range: -2,147,483,648 to 2,147,483,647)
- SCurveEnable

  Set enable/disable of S curve acceleration/deceleration. (0: Disable, 1: Enable)
- iSCurvTime

  For using S curve acceleration/deceleration, set S curve acceleration/deceleration time. (Set range: 1 to 5,000)
- ContinueEnable

  Set enable/disable of continuation.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.7 *autaic_PgmHOM*

This function, autaic_PgmHOM, is for driving home search.

(1) Function

```
int autaic_ PgmHOM (
int PortNum,
char nNodeId,
int nStepNo,
int iHomeMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- iHomeMode: Set home search mode. (0: general home search, 1: limit home search, 2: zero point home search, 3: torque home search)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.8 *autaic_PgmICJ*

This function, autaic_PgmICJ, is for jumping the designated step when input port of input condition command is activated, or executing the next step when it is not activated.

(1) Function

```
int autaic_ PgmICJ (
int PortNum,
char nNodeId,
int nStepNo,
int nJumpStep,
int nInputPtNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nJumpStep: Enter the step number to be jumped. (Set range: 0 to 255)
- nInputPtNo: Enter input port number. (Set range: 0 to 8)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.9 *autaic_PgmIRD*

This function, autaic_PgmIRD, is for jumping the next step when input port of input wait command is activated, or waiting the current step when it is not activated until activated.

(1) Function

```
int autaic_ PgmIRD (
int PortNum,
char nNodeId,
int nStepNo,
int nInputPtNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nInputPtNo: Enter input port number. (Set range: 0 to 8)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.10 *autaic_PgmOPC*

This function, autaic_PgmOPC, is for turning ON/OFF the designated output port as output port ON/OFF command.

(1) Function

```
int autaic_ PgmOPC (
int PortNum,
char nNodeId,
int nStepNo,
int nOutPtNo,
BOOL bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nOutPtNo: Enter output port number. (Set range – AiC-D: 0 to 9, AiC-D-B: 0 to 8)
- bOn: Select output port ON/OFF status. (0: OFF, 1: ON)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.11 *autaic_PgmOPT*

This function, autaic_PgmOPT, is for turning ON the set output port of output port ON pulse command during the ON time.

(1) Function

```
int autaic_ PgmOPT (
int PortNum,
char nNodeId,
int nStepNo,
int nOutPtNo,
int ParaOnTim,
int iOnTim,
BOOL bOn
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nOutPtNo: Enter output port number. (Set range – AiC-D: 0 to 9, AiC-D-B: 0 to 8)
- ParaOnTim

  Enter output port ON time. (Set range: 1 to 6)
  - 1 to 5 input
    : Turns ON the output port for the set ON time 1 to 5.
  - 6 input
    : Turns ON the output port for the entered time at iOnTim.
- iOnTim: Enter output port ON time. (Set range: 1 to 10,000)
- bOn: Select output port ON pulse status. (0: OFF, 1: ON)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.12 *autaic_PgmJMP*

This function, autaic_PgmJMP, is for jumping the designated step by jump command.

(1) Function

```
int autaic_ PgmJMP (
int PortNum,
char nNodeId,
int nStepNo,
int nJumpStep
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nJumpStep: Enter the step number to be jumped. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.13 *autaic_PgmREP*

This function, autaic_PgmREP, is for executing repeat from the next step of repeat start command to the “RPE(repeat end)” command for the set times.

(1) Function

```
int autaic_ PgmREP (
int PortNum,
char nNodeId,
int nStepNo,
int nRepCnt
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- nRepCnt

  Enter the number of repeats. (Set range: 1 to 255)
  The register number of repeat end command must be below the repeat start command.
  Repeat loop is available up to 3 times.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.14 *autaic_PgmRPE*

This function, autaic_PgmRPE, is end command of “REP” as repeat end command.

(1) Function

```
int autaic_ PgmRPE (
int PortNum,
char nNodeId,
int nStepNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.15 *autaic_PgmEND*

This function, autaic_PgmEND, is for ending program mode drive.
Must enter the command at the end of program.

(1) Function

```
int autaic_ PgmEND (
int PortNum,
char nNodeId,
int nStepNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.16 *autaic_PgmPOS*

This function, autaic_PgmPOS, is for setting position value.

(1) Function

```
int autaic_PgmPOS (
int PortNum,
char nNodeId,
int nStepNo,
long lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- lPos: Enter the position value to be set. (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.17 *autaic_PgmTIM*

This function, autaic_PgmTIM, is for executing wait command during the set time as the wait command.

(1) Function

```
int autaic_PgmTIM (
int PortNum,
char nNodeId,
int nStepNo,
int ParaDelayTim,
int DelayTim
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- ParaDelayTim

  Enter wait time. (Set range: 1 to 6)
  1 to 5 input: Sets the set wait time 1 to 5.
  6 input: Sets the entered time at DelayTim(wait time).

- DelayTim: Enter wait time. (Set range: 1 to 10000).

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.18 *autaic_PgmCMP*

This function, autaic_PgmCMP, is for setting Compare 1, 2 (comparison output 1, 2) parameter.

(1) Function

```
int autaic_ PgmCMP (
int PortNum,
char nNodeId,
int nStepNo,
int iCompareNo,
int iCompMode,
int iPulseWidth,
long lPulsePeriod,
long lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.
- nStepNo: Enter the step number to set command. (Set range: 0 to 255)
- iCompareNo: Set comparison output port. (Set range: 1 to 3)
- iCompareMode

  Sets comparison output mode.

  0: Not used (Not used, outputs [L])
  1: Outputs [H] when the current absolute position is bigger than or same as ‘Compare1 Position’
  2: Outputs [H] when the current absolute position is smaller than or same as ‘Compare1 Position’
  3: Outputs the set pulse width of ‘Compare Pulse Width’ with the set period of ‘Compare1 Period’
- iPulseWidth

  In case of “Compare Mode”=3, set width (msec) of output signal.
  (Set range: 1 to 1000)
- lPulsePeriod

  In case of “Compare Mode”=3, set period (pulse) of output signal.
  (Set range: 1 to 2,147,483,647)
- lPulsePos

  In case of “Compare Mode”=1 or “Compare Mode”=2, set trigger output signal position.
  (Set range: -2,147,483,648 to 2,147,483,647)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.19 *autaic_PgmDelAll*

This function, autaic_PgmDelAll, is for deleting all program mode data of 0 to 255 steps.

(1) Function

```
int autaic_ DelPgmDelAll (
int PortNum,
char nNodeId
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When the node ID is out of the range, AIC_INVALID_NODE(9) is returned.
  Enter Broadcast (0x81) and data transfers to every connected AiC-D(-B) with PC by broadcast function.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.20 *autaic_PgmDelStep*

This function, autaic_PgmDelStep, is for deleting program mode data of the designated step.

(1) Function

```
int autaic_PgmDelStep (
int PortNum,
char nNodeId,
int nStepNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- nStepNo: Enter step number to be deleted. (Set range: 0 to 255)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

6.21 autaic_GetPgmData

This function, autaic_GetPgmData, is for loading the registered program mode data information at the set 0 to 255 step.

(1) Function

```
Int autaic_GetPgmData (
int PortNum,
char nNodeId,
int nStepNo,
AIC_PGMDATA *pPgmData
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pPgmData: Save the set program mode data information of 0 to 255 step.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7 Monitoring Data

7.1 autaic_GetDriverMode

This function, autaic_GetDriverMode, is for loading the current drive mode value.

(1) Function

```
int autaic_GetDriverMode (
int PortNum,
char nNodeId,
int *iDrvMode
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iDrvMode: Save the current value of drive mode.

  (0: wait, 1: index, 2: jog, 3: continuous, 4: program, 5: home, 6: general)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.2 *autaic_GetLogicalPos*

This function, autaic_GetLogicalPos, is for loading the current command position coordinate value.

(1) Function

```
int autaic_GetLogicalPos (
int PortNum,
char nNodeId,
long *lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Save the command position coordinate value.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.3 *autaic_GetActualPos*

This function, autaic_GetActualPos, is for loading the current actual position coordinate value.

(1) Function

```
int autaic_GetActualPos (
int PortNum,
char nNodeId,
long *lPos
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lPos: Save the actual position coordinate value.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.4 autaic_GetLogicalDrvSpd

This function, autaic_GetLogicalDrvSpd, is for loading the current command drive speed.

(1) Function

```
int autaic_GetLogicalDrvSpd (
int PortNum,
char nNodeId,
long *lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lDrvSpd: Save the current command max. drive speed value.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.5 *autaic_GetActualDrvSpd*

This function, autaic_GetActualDrvSpd, is for loading the current actual drive speed.

(1) Function

```
int autaic_GetActualDrvSpd (
int PortNum,
char nNodeId,
long *lDrvSpd
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- lDrvSpd: Save the current actual max. drive speed.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.6 *autaic_GetMotorRPM*

This function, autaic_GetMotorRPM, is for loading rotation speed.

(1) Function

```
int autaic_GetMotorRPM (
int PortNum,
char nNodeId,
int *iMotorRPM
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iMotorRPM: Save rotation speed (RPM).

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.7 *autaic_GetCurPgmNo*

This function, autaic_GetCurPgmNo, is for loading the executing program mode step number value.

(1) Function

```
int autaic_GetCurPgmNo (
int PortNum,
char nNodeId,
int *iCurPgmNo
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iCurPgmNo: Save the executing program mode step number.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.8 *autaic_GetErrorSt*

This function, autaic_GetErrorSt, is for loading the alarm status of current drive.

(1) Function

```
int autaic_GetErrorSt (
int PortNum,
char nNodeId,
AIC_ERRORSTATE *pError
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pError: Save the alarm value of the current drive.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.9 *autaic_GetParallell01*

This function, autaic_GetParallell01, is for loading I/O status.

(drive start, STEP0/+Run/+Jog, STEP1/-Run/-Jog, STEP2/SSP0, STEP3/SSP1, STEP4/MSP0, STEP5/MSP1)

(1) Function

```
int autaic_GetParallell01 (
int PortNum,
char nNodeId,
PARALLELSTATE1 *pState
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pState: Save input/output signal status. (0: OFF, 1: ON)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.10 *autaic_GetParallell02*

This function, autaic_GetParallell02, is for loading I/O status.

(+Limit, - Limit, IN0 to 8, deceleration mode)

(1) Function

```
int autaic_GetParallell02 (
int PortNum,
char nNodeId,
PARALLELSTATE2 *pState
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pState: Save input/output signal status. (0: OFF, 1: ON)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.11 *autaic_GetParallell03*

This function, autaic_GetParallell03, is for loading I/O status.

(Alarm, In-Position, Compare 1, Compare 2)

(1) Function

```
int autaic_GetParallell03 (
int PortNum,
char nNodeId,
PARALLELSTATE3 *pState
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pState: Save input/output signal status. (0: OFF, 1: ON)

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

7.12 *autaic_MonitorData*

This function, autaic_MonitorData, is for loading all data status of monitoring group.

(1) Function

```
int autaic_MonitorData (
int PortNum,
char nNodeId,
AIC_MonitorData *pMData
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pMData: Save all data status of monitoring group.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8 Product Information

8.1 autaic_GetSofVer

This function, autaic_GetSofVer, is for loading the applied software version.

(1) Function

```
int autaic_GetSofVer (
int PortNum,
char nNodeId,
AIC_SOFTVERSION *pVersion
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pVersion: Set software version.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.2 *autaic_GetModName*

This function, autaic_GetModName, is for loading motor model name.

(1) Function

```
int autaic_GetModName (
int PortNum,
char nNodeId,
AIC_SOFTVERSION *pVersion
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- pVersion: Save motor model name.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.3 *autaic_GetCoilStatusStartAddress*

This function, autaic_GetCoilStatusStartAddress, is for loading CoilStatus start address.

(1) Function

```
int autaic_GetCoilStatusStartAddress (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save CoilStatus start address.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.4 *autaic_GetCoilStatusQuantity*

This function, autaic_GetCoilStatusQuantity, is for loading the number of CoilStatus addresses.

(1) Function

```
int autaic_GetCoilStatusQuantity (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save the number of CoilStatus addresses.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.5 *autaic_GetInputStatusStartAddress*

This function, autaic_GetInputStatusStartAddress, is for loading InputStatus start address.

(1) Function

```
int autaic_GetInputStatusStartAddress (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save InputStatus start address.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.6 *autaic_GetInputStatusQuantity*

This function, autaic_GetInputStatusQuantity, is for loading the number of InputStatus addresses.

(1) Function

```
int autaic_GetInputStatusQuantity (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save the number of InputStatus addresses.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.7 *autaic_GetHoldingRegisterStartAddress*

This function, autaic_GetHoldingRegisterStartAddress, is for loading Holding Register start address.

(1) Function

```
int autaic_ GetHoldingRegisterStartAddress (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save Holding Register start address.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.8 *autaic_GetHoldingRegisterQuantity*

This function, autaic_GetHoldingRegisterQuantity, is for loading the number of Holding Register addresses.

(1) Function

```
int autaic_ GetHoldingRegisterQuantity (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save the number of Holding Register addresses.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.9 *autaic_GetInputRegisterStartAddress*

This function, autaic_GetInputRegisterStartAddress, is for loading Input Register start address.

(1) Function

```
int autaic_ GetInputRegisterStartAddress (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save Input Register start address.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

8.10 *autaic_GetInputRegisterQuantity*

This function, autaic_GetInputRegisterQuantity, is for loading the number of Input Register addresses.

(1) Function

```
int autaic_ GetInputRegisterQuantity (
int PortNum,
char nNodeId,
int *iAddr
);
```

(2) Parameter

- PortNum: Enter serial port to execute the command.
- nNodeId

  Select the node ID. The range of node ID is 0 to 31.
  When it is out of the ID range, AIC_INVALID_NODE(9) is returned.

- iAddr: Save the number of Input Register addresses.

(3) Return value

Type	Definition	Return value	Description
Normal	AIC_OK	0	The function executes the command normally.
Input error	AIC_INVALID_COMMAND	1	Invalid command is entered.
	AIC_INVALID_ADDRESS	2	Invalid address is entered.
	AIC_INVALID_ADDRESS_COUNT	3	Invalid address counter is entered.
	AIC_INVALID_PROCESS	4	Invalid process
	AIC_INVALID_PORT	5	Entered port is not available or invalid port number is entered.
	AIC_INVALID_BAUDRATE	6	Invalid baudrate is entered.
	AIC_INVALID_PARITYBIT	7	Invalid parity bit is entered.
	AIC_INVALID_STOPBIT	8	Invalid stop bit is entered.
	AIC_INVALID_NODE	9	Invalid node number
	AIC_INVALID_DATA	10	Invalid data
	AIC_INVALID_COMMUNICATION	11	Communication error
	AIC_CRC_ERROR	12	CRC error
	AIC_NO_RESPONSE_MESSAGE	13	No response

9 Example of Library Usage

9.1 Reset

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
 int stat=0; // AiC communication connection function
             // Return value: returns AIC_OK when command executes normally.
             // Function: To be connected Serial Port Number, Serial Port Baudrate,
                          Serial Port Paritibit, Serial Port Stopbit
             // stat: Check the connectable comport status.

 for (int i=0; i<=PORTNO; i++)
 {

 switch(i)
 {
 case   0: stat = autaic_Open(0, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   1: stat = autaic_Open(1, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   2: stat = autaic_Open(2, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   3: stat = autaic_Open(3, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   4: stat = autaic_Open(4, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   5: stat = autaic_Open(5, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   6: stat = autaic_Open(6, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   7: stat = autaic_Open(7, AIC_BAUD_115200, None, STOPBIT1);
           break;
 case   8: stat = autaic_Open(8, AIC_BAUD_115200, None, STOPBIT1);
```



```
            break;
case    9: stat = autaic_Open(9, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 10: stat = autaic_Open(10, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 11: stat = autaic_Open(11, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 12: stat = autaic_Open(12, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 13: stat = autaic_Open(13, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 14: stat = autaic_Open(14, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 15: stat = autaic_Open(15, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 16: stat = autaic_Open(16, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 17: stat = autaic_Open(17, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 18: stat = autaic_Open(18, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 19: stat = autaic_Open(19, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 20: stat = autaic_Open(20, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 21: stat = autaic_Open(21, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 22: stat = autaic_Open(22, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 23: stat = autaic_Open(23, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 24: stat = autaic_Open(24, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 25: stat = autaic_Open(25, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 26: stat = autaic_Open(26, AIC_BAUD_115200, None, STOPBIT1);
            break;
case 27: stat = autaic_Open(27, AIC_BAUD_115200, None, STOPBIT1);
            break;
```

```
            case 28: stat = autaic_Open(28, AIC_BAUD_115200, None, STOPBIT1);
                     break;
            case 29: stat = autaic_Open(29, AIC_BAUD_115200, None, STOPBIT1);
                     break;
            case 30: stat = autaic_Open(30, AIC_BAUD_115200, None, STOPBIT1);
                     break;
            case 31: stat = autaic_Open(31, AIC_BAUD_115200, None, STOPBIT1);
                     break;
            }
            if (stat == AIC_OK)
            {
                     printf("MESSAGE: Found and open 'AiC Series (ID=%d)' ComPort\n", i);
            }
            }

            autaic_Close(i);
    }
```


9.2 *Stop, End*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
 int Flag=0; //error check flag

 autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN
 Flag=autaic_Close(PORTNO); // port CLOSE

 if(Flag!=AIC_OK)
 {
        printf("error! retrun value: %d\n", Flag);
 }
 }
```

9.3 *Parameter setting*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
        autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN

        AIC_BITSET ActLev;
        AIC_BITSET *pActLev = &ActLev;

        autaic_GetBitSetGroup(PORTNO, Node01, pActLev);
        //loads bit set group

        printf("%d\n", pActLev->bLmtStopMod); //limit stop mode
        printf("%d\n", pActLev->bSCurve); //S curve acceleration/deceleration
        printf("%d\n", pActLev->bInputFilter); //select Input filter
        printf("%d\n", pActLev->bSofLmtEnable); //software limit
        printf("%d\n", pActLev->bPowHomStart);
        //power ON home search auto start
        printf("%d\n", pActLev->bPowPgmStart);
        // power ON program auto start
        printf("%d\n", pActLev->bStopCurrentFix); //stop current fixed method
        printf("%d\n", pActLev->bDrvStart);
        //Index/Program mode start signal level setting
        printf("%d\n", pActLev->bSTEPSL0);
        //Step0/+Run/+Jog signal level setting
        printf("%d\n", pActLev->bSTEPSL1);
        //Step1/-Run/-Jog signal level setting
        printf("%d\n", pActLev->bSTEPSL2); //Step2/SSP0 signal level setting
        printf("%d\n", pActLev->bSTEPSL3); //Step3/SSP1 signal level setting
        printf("%d\n", pActLev->bSTEPSL4);//Step4/MSP0 signal level setting
        printf("%d\n", pActLev->bSTEPSL5);//Step5/MSP1 signal level setting
        printf("%d\n", pActLev->bMODE0); //drive mode 0/home search mode 0 signal
        level setting
        printf("%d\n", pActLev->bMODE1); //drive mode 1/home search mode 1 signal
```



```
        level setting
        printf("%d\n", pActLev->bPause); //pause signal level setting
        printf("%d\n", pActLev->bStop); //stop signal level setting
        printf("%d\n", pActLev->bEMG); //emergency stop signal level setting
        printf("%d\n", pActLev->bHOME);//home search start signal level setting
        printf("%d\n", pActLev->bALMReset); //alarm reset signal level setting
        printf("%d\n", pActLev->bServoOn); //servo on/off signal level setting
        printf("%d\n", pActLev->bLmtActLev); //limit signal level setting
        printf("%d\n", pActLev->bUserInput0); //general input 0 signal level setting
        printf("%d\n", pActLev->bUserInput1); //general input 1    signal level setting
        printf("%d\n", pActLev->bUserInput2); //general input 2 signal level setting
        printf("%d\n", pActLev->bUserInput3); //general input 3 signal level setting
        printf("%d\n", pActLev->bUserInput4); //general input 4 signal level setting
        printf("%d\n", pActLev->bUserInput5); //general input 5 signal level setting
        printf("%d\n", pActLev->bUserInput6); //general input 6 signal level setting
        printf("%d\n", pActLev->bUserInput7); //general input 7 signal level setting
        printf("%d\n", pActLev->bUserInput8); //general input 8 signal level setting
        printf("%d\n", pActLev->bSDMode); //SD signal level setting

        if(pActLev->iErrorState!=AIC_OK)
        {
                printf("error! retrun value: %d\n", pActLev->iErrorState);
        }

        autaic_Close(PORTNO);
}
```

9.4 *Movement control*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
 int Flag=0; //error check flag
 long lStartSpeed=100; //start drive speed
 long lMaxSpeed=1000; //max. drive speed
 int iAcctime=100; //acceleration time(msec)
 int iDectime=100; //deceleration time(msec)
 long lLocate=10000; //movement position coordinate

 autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN
 autaic_SetInitDrvSet(PORTNO, Node01, lStartSpeed, lMaxSpeed, iAcctime, iDectime);
 //start drive speed, max. drive speed, acceleration time, deceleration time set

 autaic_SetInitPosition(PORTNO, Node01, lLocate); //movement position coordinate set
Flag=autaic_ABSMove(PORTNO, Node01); //absolute position movement command
execution

 if(Flag!=AIC_OK)
 {
        printf("error! retrun value: %d\n", Flag);
 }

 autaic_Close(PORTNO);
}
```


9.5 *Program mode*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
        int iStepNo=0; //step number

        autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN
        AIC_PGMDATA PgmData;
        AIC_PGMDATA *pPgmData = &PgmData;

        for (int i=0; i < 256; i++) //0 to 255 step
        {
                autaic_GetPgmData(PORTNO, Node01, i, pPgmData);
                //load the set Program mode information

                printf("%d\n", pPgmData->iCommand);
                //the set Program mode command
                 "used command: ABS, INC, HOM, ICJ, IRD, OPC, OPT,
                                JMP, REP, RPE, END, POS, TIM"

                printf("%d\n", pPgmData->ParaStartSpd);
                //start drive speed    (1 to 5: Parameter start drive speed ,
                 6: user Input start drive speed )
                 "used command: ABS, INC"

                printf("%d\n", pPgmData->SCurveEnable);
                //S curve acceleration/deceleration enable/disable (0: disable, 1: enable)
                 "used command: ABS, INC"

                printf("%d\n", pPgmData->ParaMaxSpd);
                //max. drive speed    (1 to 5: Parameter max. drive speed ,
                 6: user Input max. drive speed )
                 "used command: ABS, INC"
```

```
printf("%d\n", pPgmData->ParaAccel);
//acceleration time (1 to 5: Parameter acceleration time,
  6: user Input acceleration time)
  "used command: ABS, INC"

printf("%d\n", pPgmData->ParaDecel);
//deceleration time (1 to 5: Parameter deceleration time,
  6: user Input deceleration time)
  "used command: ABS, INC"

printf("%d\n", pPgmData->StartSpd);
//user Input start drive speed
  "used command: ABS, INC"

printf("%d\n", pPgmData->MaxSpd);
//user Input max. drive speed
  "used command: ABS, INC"

printf("%d\n", pPgmData->Accel);
//user Input acceleration time(msec)
  "used command: ABS, INC"


printf("%d\n", pPgmData->Decel);
//user Input deceleration time(msec)
  "used command: ABS, INC"

printf("%d\n", pPgmData->SCurv);
//S curve acceleration/deceleration time
  "used command: ABS, INC"

printf("%d\n", pPgmData->lPos);
//position coordinate
  "used command: ABS, INC, POS"

printf("%d\n", pPgmData->iHomeMode);
//home search type
  "used command: HOM"
```



```
printf("%d\n", pPgmData->nInputPtNo);
//Input port number
 "used command: ICJ, IRD"

printf("%d\n", pPgmData->nJumpStep);
//step number to be jumped
 "used command: ICJ, JMP"

printf("%d\n", pPgmData->nOutPtNo);
//output port number
 "used command: OPC, OPT"

printf("%d\n", pPgmData->bOn);
//ON/OFF
 "used command: OPC, OPT"

printf("%d\n", pPgmData->ParaOnTim);
//ON time (1 to 5: Parameter ON time,
 6: user Input ON time)
 "used command: OPT"

printf("%d\n", pPgmData->iOnTim);
//user Input ON time
 "used command: OPT"

printf("%d\n", pPgmData->nRepCnt);
//repeat times
 "used command: REP"

printf("%d\n", pPgmData->ParaDelayTim);
//wait time (1 to 5: Parameter wait time,
 6: user Input wait time)
 "used command: TIM"

printf("%d\n", pPgmData->DelayTim);
//user Input wait time(msec)
 "used command: TIM"
```

```
                printf("%d\n", pPgmData->iCompareNo);
                //comparison output number(1 to 2)
                 "used command: CMP"

                printf("%d\n", pPgmData-> iCompareMode);
                //comparison output mode(0 to 3)
                 "used command: CMP "



                printf("%d\n", pPgmData->iPulseWidth);
                //comparison output width
                "used command: CMP "

                printf("%d\n", pPgmData->iPulsePeriod);
                //comparison output period
                 "used command: CMP "
        }

        if(pPgmData->iErrorState!=AIC_OK)
        {
                printf("error! retrun value: %d\n", Flag);
        }

        autaic_Close(PORTNO);
}
```


9.6 *Monitoring data*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
        autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN

        AIC_MonitorData MData;
        AIC_MonitorData *pMData = &MData;

        autaic_MonitorData(PORTNO, Node01, pMData);
        //load monitoring data status

        printf("%ld\n", pMData->lLogicalPos); //command position coordinate
        printf("%ld\n", pMData->lActualPos); //actual position coordinate
        printf("%ld\n", pMData->lLogicalSpd); //command drive speed
        printf("%ld\n", pMData->lActualSpd); //actual drive speed
        printf("%d\n", pMData->iMotorRPM); //motor rotation speed(RPM)
        printf("%d\n", pMData->iCurStepNo); //driving program step number
        printf("%d\n", pMData->iDrvMode); //drive mode
        printf("%d\n", pMData->bOverCurErr); //over current error
        printf("%d\n", pMData->bOverSpdErr); //over speed error
        printf("%d\n", pMData->bPosEstErr); //position follow error
        printf("%d\n", pMData->bOverloadErr); //over load error
        printf("%d\n", pMData->bOverheatErr); //over heat error
        printf("%d\n", pMData->bMotorConErr); //motor connection error
        printf("%d\n", pMData->bEncoderConErr); //encoder connection error
        printf("%d\n", pMData->bEmgErr); //return volt error
        printf("%d\n", pMData->bEmgErr); //motor alignment error
        printf("%d\n", pMData->bEmgErr); //command speed error
        printf("%d\n", pMData->bEmgErr); //Input voltage error
        printf("%d\n", pMData->bEmgErr); //In-Position error
        printf("%d\n", pMData->bMemoryErr); //memory error
        printf("%d\n", pMData->bEmgErr); //emergency stop error
        printf("%d\n", pMData->bPgmErr); //Program mode error
```

```
printf("%d\n", pMData->bInxErr); //Index mode error
printf("%d\n", pMData->bHomeSearchErr); //home search mode    error
printf("%d\n", pMData->bSofLmtErrP); //+software limit error
printf("%d\n", pMData->bSofLmtErrM); //-software limit error
printf("%d\n", pMData->bHardLmtErrP); //+hardware limit error
printf("%d\n", pMData->bHardLmtErrM); //-hardware limit error
printf("%d\n", pMData->bOverloadWarn); //over load warning
printf("%d\n", pMData->bDrvStart); //drive start
printf("%d\n", pMData->bSTEP[0]); //Step0/+Run/+Jog
printf("%d\n", pMData->bSTEP[1]); //Step1/-Run/-Jog
printf("%d\n", pMData->bSTEP[2]); //Step2/SSP0
printf("%d\n", pMData->bSTEP[3]); //Step3/SSP1
printf("%d\n", pMData->bSTEP[4]); //Step4/MSP0
printf("%d\n", pMData->bSTEP[5]); //Step5/MSP1
printf("%d\n", pMData->bMODE[0]); //drive mode designate 0
printf("%d\n", pMData->bMODE[1]); //drive mode designate 1
printf("%d\n", pMData->bPause); //pause
printf("%d\n", pMData->bStop); //stop
printf("%d\n", pMData->bEMG); //emergency stop
printf("%d\n", pMData->bHOME); //home search
printf("%d\n", pMData->bALMReset); //alarm reset
printf("%d\n", pMData->bServoOn); //servo ON/OFF
printf("%d\n", pMData->bORG); //home sensor
printf("%d\n", pMData->bLmtP); //+Limit sensor
printf("%d\n", pMData->bLmtM); //-Limit sensor
printf("%d\n", pMData->bUserInput[0]); //general input0
printf("%d\n", pMData->bUserInput[1]); //general input1
printf("%d\n", pMData->bUserInput[2]); //general input2
printf("%d\n", pMData->bUserInput[3]); //general input3
printf("%d\n", pMData->bUserInput[4]); //general input4
printf("%d\n", pMData->bUserInput[5]); //general input5
printf("%d\n", pMData->bUserInput[6]); //general input6
printf("%d\n", pMData->bUserInput[7]); //general input7
printf("%d\n", pMData->bUserInput[8]); //general input8
printf("%d\n", pMData->bSDMode); //deceleration mode
printf("%d\n", pMData->bAlMSignal); //alarm output
printf("%d\n", pMData->bInposition); //In-Position output
printf("%d\n", pMData->bCompare[1]); //comparison output1
printf("%d\n", pMData->bCompare[2]); //comparison output2
```



```
        if(pState->iErrorState!=AIC_OK)
        {
                printf("error! retrun value: %d\n", pMData->iErrorState);
        }

        autaic_Close(PORTNO);
}
```

9.7 *Product information*

```
#include <stdio.h>
#include <windows.h>
#include "lib\include\Library.h"
#pragma comment(lib,"lib\\x64\\AiCLibrary.lib")
#define PORTNO  6

void main()
{
        autaic_Open(PORTNO, AIC_BAUD_115200, None, STOPBIT1); //port OPEN

        AIC_SOFTVERSION Version;
        AIC_SOFTVERSION *pVersion = &Version;

        autaic_GetSofVer (PORTNO, Node01, pVersion); //Loads firmware verion.

        printf("%s\n",pVersion->cSofVer);

        if(pVersion->iErrorState!=AIC_OK)
        {
                printf("error! retrun value: %d\n", pVersion->iErrorState);
        }

 autaic_Close(PORTNO);
 }
```


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■ **Russia – Autonics Corp. Russia Representative Office**
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