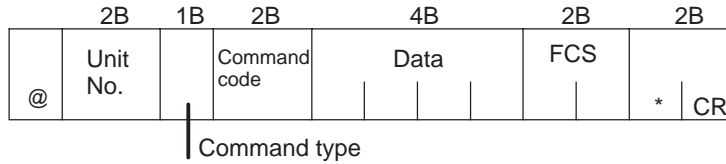


Command Structure

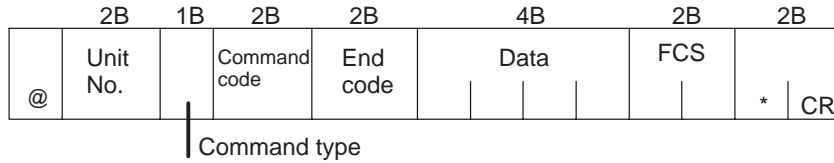
Command structure is as follows. Each command is paired with a response.

Command



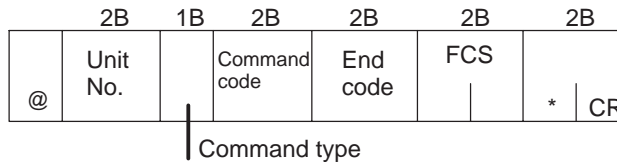
Response

End code = 00



Response

End code = 00



- “@”
The start character. This character must be inserted before the leading byte.
- Unit No.
Specifies the “unit No.” of the E5EK-T. If there are two or more transmission destinations, specify the desired destination using “unit No.”
- Command type

Code	Command type
1	Parameter read
2	Parameter write
3	Special command
4	Program parameter read
5	Program parameter write

- Command code
Specifies the command for each command type. With parameter read/write commands and program parameter read/write commands, this becomes the parameter No.
- Data
Specifies the set value or setting content. With the parameter read and program parameter read commands, set dummy data “0000”. In the response, this is inserted only when the end code is “00”.



About invalid parameters

Currently, if a command is used for invalid parameters (parameters that do not satisfy the conditions of use in Chapter 5), the “undefined” error (end code: IC) resp is returned.

- End code
Sets the communication results. For details on the types and meanings of end codes, see Section 6.5 How to Read Communications Error Information
- FCS (Frame Check Sequence)
Set the frame check results from the start character to the data area. For details on the frame check, see Section 6.6 Program Example
- “*” “CR (Carriage Return) code”
Indicates the end (terminator) of the command or response block.



How to Calculate FCS

Calculate the exclusive OR from the start character to the data section. The following describes an example of how to calculate the FCS for “@001000000”.

- (1) Convert the ASCII codes of each character to Hexadecimal “40H, 30H, 30H”.
- (2) Calculate the exclusive OR of all characters.
- (3) Convert to ASCII code. (→ “4B”)
- (4) Set the result as FCS.

● ASCII → Hex

ASCII	@	0	0	1	0	0	0	0	0	0
Hex	40H	30H	30H	31H	30H	30H	30H	30H	30H	30H

● Exclusive OR

$$40H \oplus 30H \oplus 30H \oplus 31H \oplus 30H \oplus 30H \oplus 30H \oplus 30H \oplus 30H \oplus 30H = 71H$$

● Conversion to ASCII code at each digit of the calculation result and setting to FCS

ASCII	@	0	0	1	0	0	0	0	0	0	7	1
Hex	40H	30H	30H	31H	30H	30H	30H	30H	30H	30H	37H	31H

FCS

● Completed frame (with appended terminator)

ASCII	@	0	0	1	0	0	0	0	0	0	7	1	*	CR
Hex	40H	30H	30H	31H	30H	30H	30H	30H	30H	30H	37H	31H	2AH	0DH

FCS

Terminator