

6. SOFTWARE CONTROL: COMMAND GROUP

Command symbols definitions are as below:

EOT 04H
SOH 01H
ETB 17H
ESC 1BH
US 1FH
ACK 06H
NACK 15H

Group A. (command sets)

A1. Package Command Format

EOT	SOH	COMMAND	ETB
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Command List

Command	Hexadecimal	Description
B	42H	Set baud rate and parity
I	49H	Select international character set
S	53H	Save the current view message
P	50H	Set cursor position
C	43H	Clear display message
D	44H	Display the saved DEMO message
T	54H	Transmit the current view message to computer
V	56H	Query the version of firmware
O	4FH	Set stay-message or running-message on display

Note: 8036 will reply, after receive these commands.

A2. ESC Command Format

ESC	COMMAND
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Command List

Command	Hexadecimal	Description
G	47H	Enable AUX-DEVICE (Printer)
S	53H	Disable AUX-DEVICE (Printer)

A. Group A Command Instructions (command sets)

A1-1. Set Communication Baud-Rate & Parity

ASCII	EOT	SOH	B	baudrate	parity	ETB
HEX	04H	01H	42H	n	p	17H

[Description]

You can set communication parameter by this command.

[Parameter]

baudrate	38400	600	1200	2400	4800	9600	19200
n	36H	35H	34H	33H	32H	31H	30H

p='N' means "non-parity, 8 data bits, 1 stop bit"

p='O' means "odd-parity, 7 data bits, 1 stop bit"

p='E' means "even-parity, 7 data its, 1 stop bit"

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

[Default] **baudrate**=19200, **non**-parity, **8** data bits, **1** stop bit.

A1-2. Select international code table

ASCII	EOT	SOH	I	country	ETB
HEX	04H	01H	49H	n	17H

[Description]

You can set one of international code table as character table for displaying. The same position in different international code table may be different. So, please refer **6. CHARACTER TABLES** to select correct code table.

[Parameters]

country	U.S.A.	France	Germany	U.K.	Denmark I	Sweden	Italy	Spain
n	30H	31H	32H	33H	34H	35H	36H	37H
country	Japan	Norway	Denmark II	East Europe	Russian	Hebrew	Greek	
n	38H	39H	3AH	3BH	3CH	3DH	3EH	

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

[Default] **country**=U.S.A.

A1-3. Save the current view-message as advertising message

ASCII	EOT	SOH	S	layer	ETB
HEX	04H	01H	53H	31H ≤ n ≤ 33H	17H

[Description]

8036 is capable to save 3 layers of advertising messages. Each layer can have 40 characters. This commands save the current view-message as one of 3 layers. 8036 demonstrate these layer-messages when execute **A1-6** command.

[Parameters]

n=31H, means the current view-message saved to layer1 advertising message

n=32H, means the current view-message saved to layer2 advertising message

n=33H, means the current view-message saved to layer3 advertising message

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

A1-4. Set cursor position

ASCII	EOT	SOH	P	position	ETB
HEX	04H	01H	50H	$31H \leq p \leq 58H$	17H

[Description]

You can locate cursor by this command. The position is regarded as linear.

[Parameters] The cursor can be set to the position from 1 to 40.

Position 1(p=31H) means the upper-left corner position.

Position 20(p=44H) means the upper-right corner position.

Position 21(p=45H) means the lower-left corner position.

Position 40(p=58H) means the lower-right corner position.

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

A1-5. Clear specific display area

ASCII	EOT	SOH	C	start position	end position	ETB
HEX	04H	01H	43H	$31H \leq p1 \leq 58H$	$31H \leq p2 \leq 58H$	17H

[Description]

Specific part of the current view messages can be cleared by this command.

[Parameters] **p1** and **p2** range same as **A1-4 Parameters**.

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

A1-6. DEMO the saved advertising message

ASCII	EOT	SOH	D	layer	mode	ETB
HEX	04H	01H	44H	$31H \leq l \leq 37H$	$31H \leq m \leq 37H$	17H

[Description]

1. There are three layers of saved advertising messages as described on **A1-3**.
2. There are three modes of display.
mode1 is running the saved messages from right to left, which is a horizontal scroll mode.
mode2 is running the saved messages from the lower line to the upper line, which is a vertical scroll mode.
mode3 is displaying the saved messages with blinking.
3. For display layers,
l=31 H means display the message saved on layer1.
l=32H means display the message saved on layer2.
l=33H means display the message saved on layer3.

l=34H means display the two messages saved on layer1 + layer2.
 l=35H means display the two messages saved on layer1 + layer3.
 l=36H means display the two messages saved on layer2 + layer3.
 l=37H means display all the three messages saved on layer1+layer2+ layer3.

4. For display modes,

m=31 H means display the message with mode1. (horizontal scroll mode)
 m=32H means display the message with mode2. (vertical scroll mode)
 m=33H means display the message with mode3. (blinking mode).
 m=34H means display the message with both mode1 + mode2.
 m=35H means display the message with both mode1 + mode3.
 m=36H means display the message with both mode2 + mode3.
 m=37H means display the message with all modes, mode1+mode2+mode3. For this Demo display function, you must have saved the messages by “save the current view message” previously. For example, l=37H for displaying layers and m=34H for displaying modes, 8036 would display all the three messages saved on layer1 + layer2 + layer3 with both mode1 + mode2 displaying modes.

5. Any new message from the computer would stop this Demo display function and 8036 would display that new message from the computer.

[Reply] 8036 reply **ACK**(06H) when correct or **NACK**(15H) when failed.

A1-7. Transmit the current view message to computer

ASCII	EOT	SOH	T	ETB
HEX	04H	01H	54H	17H

[Description]

You can get the current view message (40 characters) from 8036.

[Reply] The 8036 reply current view message by following format

ASCII	SOH	current view message	ETB
HEX	01H	XXXX(40 characters)	17H

or **NACK**(15H) when fail.

A1-8. Query the version of firmware

ASCII	EOT	SOH	V	ETB
HEX	04H	01H	54H	17H

[Description] You can get the version of firmware.

[Reply] The 8036 reply current version of firmware

A1-9. Set stay-message or running-message on display

ASCII	EOT	SOH	O	n	ETB
HEX	04H	01H	4FH	30H/31H	17H

[Description] **n=30H**, The 8036 will display stay-message from saved layer after you power on.

n=31H, The 8036 will display running-message from saved layer after you power on.

[Reply] 8036 reply **ACK(06H)** when correct or **NACK(15H)** when failed.

A2-1. Enable AUX-DEVICE (printer)

ASCII	ESC	G
HEX	1BH	47H

[Description]

You can enable the aux-device (printer). After execute this command, all messages will pass through aux-device, and 8036 doesn't care it. Besides **B1-1 & B1-2**.

A2-2. Disable AUX-DEVICE (printer)

ASCII	ESC	S
HEX	1BH	53H

[Description]

You can disable the aux-device (printer). After execute this command, all messages will not pass through aux-device