About File Conversion

GD-80 series and V4 series Monitouch can be replaced with V6 series Monitouch.
Although replacement is possible, performance and function are not always 100% compatible and there are restrictions in replacement and also there are functions that cannot be realized due to replacement.
This brochure deals with the items to be taken into consideration when replacing currently used Monitouch with V6 series from the standpoint of hardware and software respectively.

Please note that the brochure only describes the contents related to replacement and does not cover the functions and specifications of GD-80 series, V4 series and V6 series. Refer to GD-80 USER'S MANUAL, V Series Reference Manual and other related manuals for details of the functions and specifications of Monitouch of these series.

Hakko Electronics Co., Ltd

Contents

1 CONSIDERATIONS ON HARDWARE

When you replace the Monitouch with its succeeding model, there are always several items that differ between the present and new models due to improvements in hardware and software specifications. This section deals with such differences and availability of countermeasures for individual models.

GD-80 Series -> V6 Series

■ GD-80T/E

Item \ Model	GD-80T/E	V6	Countermeasures
Compatible model	GD-80T (TFT color)	V610T (TFT color) V610C (STN color) V608C (STN color)	Pay attention to the display device.
	GD-80EH (High-intensity EL) GD-80E0(EL)	V609E (High-intensity EL)	Use high-intensity EL also to replace GD-80E0 (EL).
Effective display area	GD-80T 9.8"	V610T/V610C 10.4"	Display size is somewhat enlarged.
		V608C 7.7"	Display size is somewhat reduced.
	GD-80EH/E0 8.9"	V609E 8.9"	————
Panel cutout dimensions (Unit: mm)	GD-80T 317 W x 229 H	V610T/V610C 289 W x 216.2 H	Use panel adapter "PAD-V610" (product of Hakko Electronics: option).
		V608C 220.5 W x 165.5 H	Use panel adapter "PAD-V608" (product of Hakko Electronics: option).
	GD-80EH/E0 277 W x 192 H	V609E 277 W x 192 H	————
Resolution for display	GD-80T 640 W x 400 H dots	V610T/V610C/V608C 640 W x 480 H dots	Expands by 80 dots in the vertical direction.
	GD-80EH/E0 640 W x 400 H dots	V609E 640 W x 400 H dots	————
Resolution for touch switches	GD-80T 20 W x 10 H switches (Matrix type)	V610T/V610C •1024 W x 1024 H (Analog type) •40 W x 24 H switches (Matrix type)	V608C does not have matrix type. It has only analog type (1024 W x 1024 H).
	GD-80EH/E0 20 W x 10 H switches (Matrix type)	V609E 40 W x 24 H switches (Matrix type)	————

External I/O terminals	With RUN, STOP and BZ terminals	RUN, STOP and BZ terminals are not available.	None
RS-422 terminal	(Only for GD-80xxx0) Available	Not available	Use terminal converter "TC485" or "TC609" (only for V609E) (product of Hakko Electronics: both options).
D-sub 15-pin connector (For direct connection to Mitsubishi A/Q/FX CPU)	(Only for GD-80xxxM) Available	Not available Direct connection to CPU is possible using standard D-sub 25-pin connector	■To use "MB-CPU" (cable for D-sub 15-pin connector) 1) V610T/C Use 15-pin/25-pin conversion cable "CAB-001" + "MB-CPU" 2) V609E Use terminal converter "TC609" + "MB-CPU". ■To connect to CPU using D-sub 25-pin connector Use D-sub 25-pin connector cable, "MB-CPUQ".
Screen data transfer cable	Connected to D-sub 25-pin connector. "GD-CP" "GD-CPV"	Connected to modular jack. Accordingly, the cable prepared for GD-80 cannot be used.	Use screen data transfer cable for V6, "V6-CP" (product of Hakko Electronics).
Communication cable	Connected to D-sub 25-pin connector.	Connected to D-sub 25-pin connector. Accordingly, the cable prepared for GD-80 can be used.	———
Printer port	Centronics 14-pin connector Standard printer cable for PC-9801 is used.	Half-pitch 36-pin connector Accordingly, the printer cable prepared for GD-80 cannot be used.	Use printer cable for V6, "V6-PT" (product of Hakko Electronics).
Bar code reader connection	(Only for GD-80xx2x) D-sub 9-pin connector is available.	Standard specification provides the connector for bar code reader. Connected to the modular jack.	Use bar code reader cable for V6, "V6-BCD" (product of Hakko Electronics).
Memory card function	(Only for GD-80xx2x) Compatible by using recorder, "GD-MREC02".	"GD-MREC02" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Storing screen data in memory card	Can be stored using recorder, "GD-MREC01".	"GD-MREC01" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).

Memory card "REC-MCARD"	FLASH ROM	Cannot be used directly.	Store the memory card data using GD-SFT80WE then read and convert the data using V-SFTE.
	SRAM	Cannot be used directly.	■ If the memory card was used to store the screen data backup. Store the memory card data using GD-SFT80WE then read and convert the data using V-SFTE. ■ If the memory card function was used. Change the applicable model name written to the memory card using "M-CARD SFTE" (to be purchased separately).
Analog RGB output	(Only for GD-80TAxxx) Compatible	Not compatible	(For details, please contact us.)
Protective screen filter	GD-80T [GD-GS80T]	V610T/V610C [V610-GS] V608C [V608-GS]	——
	GD-80EH/E0 [GD-GS80E]	V609E [GD-GS80E]	——
Water-proof screen filter	GD-80T [GD-WP80T]	V610T/V610C/V608C (Not necessary Standard specification is compatible to IP65.)	——
	GD-80EH/E0 [GD-WP80E]	V609E [GD-WP80E] (Compatible to IP64)	——

GD-80S

Item \ Model	GD-80S	V6	Countermeasures
Compatible model	GD-80SE (High-intensity EL) GD-80SL (White mode)	V606C/M (STN color/monochrome) V606iT/iC/iM (TFT color/STN color /monochrome)	If panel cutout is enlarged, V606/V606i can be used. Models compatible to GD-80SE (high-intensity EL) are not available. Monochrome LCD type (V606M/V606iM) is recommended. Note: V606M is white mode and V606iM is blue mode.
Effective display area	GD-80SE/SL 4.7"	V606/V606i 5.7"	
Panel cutout dimensions (Unit: mm)	GD-80SE/SL 158.5 W x 122.5 H	V606/V606i 174 W x 131 H	

* If V606/V606i is used by expanding panel cutout size.

Resolution for display (dot)	320 W x 240 H	320 W x 240 H	——
Resolution for touch switches	10 W x 6 H switches (Matrix type)	V606/V606i 1024 W x 1024 H (Analog type) 20 W x 12 H switches (Matrix type)	——
Screen data transfer cable	Connected to D-sub 9-pin connector. [GD-CPS] [GD-CPSV]	Connected to modular jack. Accordingly, the cable prepared for GD-80S cannot be used.	Use screen data transfer cable for V6, "V6-CP" (product of Hakko Electronics).
Communication cable	Connected to D-sub 15-pin connector.	Connected to D-sub 25-pin connector.	Use the cable different from the one used for GD-80S *2 For details, see below.
Storing screen data in memory	Can be stored using recorder, "GD-MREC01".	"GD-MREC01" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Memory card "REC-MCARD"	FLASH ROM/SRAM	Cannot be used directly.	Store the memory card data using GD-SFT80WE then read and convert the data using V-SFTE.
Protective screen filter	[GD-GS80S]	[V606-GS]	——

*2

GD-80S Side (D-sub 15-pin)

Pin No.	Signal Name	Description
1	FG	Frame ground
2	RD	RS-232C receive data
3	SD	RS-232C send data
4	CS	RS-232C clear to send RS
5	RS	RS-232C request to send CS
6		
7	SG	Signal ground
8		
9	COM	Output common
10	+RD	RS-422 receive data
11	-RD	RS-422 receive data
12	+SD	RS-422 send data
13	-SD	RS-422 send data
14	RUN	RUN signal
15	BZ	Buzzer signal

V606/V606i Side (D-sub 25-pin)

Pin No.	Signal Name	Description
1	FG	Frame ground
2	SD	RS-232C receive data
3	RD	RS-232C send data
4	RS	RS-232C request to send RS
5	CS	RS-232C clear to send CS
6		Not used
7	SG	Signal ground
8		Not used
9	+5V	Reserved
10	0V	Reserved
11		Not used
12	+SD	RS-422 send data (+)
13	-SD	RS-422 send data (-)
14	+RS	RS-422 RS send data (+)
15		Not used
16		Not used
17	-RS	RS-422 RS send data (-)
18	-CS	RS-422 CS receive data (-)
19	+CS	RS-422 CS receive data (+)
20		Not used
21		Not used
22		Not used
23		Not used
24	+RD	RS-422 received data (+)
25	-RD	RS-422 received data (-)

(None) (None) (None)

The communication cable used for GD-80SE/SL has a D-sub 15-pin connector at the 80 side and cannot be used for V606/V606i (D-sub 25-pin connector) directly.
Differences in pin arrangement is shown in the illustration in the right.
Prepare the conversion cable referring to the pin arrangement chart.

GD-81S

Item \ Model	GD-81S	V6	Countermeasures
Compatible model	GD-81SC (STN color) GD-81SW (White mode) GD-81SB (Blue mode) GD-81SH (Semi-transparent yellow)	V606iT (TFT color) V606C/V606iC (STN color) V606M (White mode) V606iM (Blue mode)	Case colors are gray for V606 and black for V606i. (Case color can be specified for GD-81S.) Models compatible to GD-81SH(Semi-transparent yellow) are not available. Monochrome LCD type (V606M/V606iM) is recommended.
Effective display area	5.7"	5.7"	———
Panel cutout dimensions (Unit: mm)	199 W x 147 H	174 W x 131 H	Use panel adapter "PAD-V606" (product of Hakko Electronics: option).
Resolution for display	320 W x 240 H dots	320 W x 240 H dots	———
Resolution for touch switches	10 W x 6 H switches (Matrix type)	1024 W x 1024 H (Analog type) 20 W x 12 H switches (Matrix type)	———
Screen data transfer cable	Connected to D-sub 25-pin connector. [GD-CP] [GD-CPV]	Connected to modular jack. Accordingly, the cable prepared for GD-81S cannot be used.	Use screen data transfer cable for V6, "V6-CP" (product of Hakko Electronics).
Communication cable	Connected to D-sub 25-pin connector.	Connected to D-sub 25-pin connector. Accordingly, the cable prepared for GD-81S can be used.	———
Printer port	Centronics 14-pin connector Standard printer cable for PC-9801 is used.	Half-pitch 36-pin connector Accordingly, the printer cable prepared for GD-81S cannot be used.	Use printer cable for V6, "V6-PT" (product of Hakko Electronics).
Storing screen data in memory card	Can be stored using recorder, "GD-MREC01".	"GD-MREC01" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Memory card "REC-MCARD"	FLASH ROM/SRAM	Cannot be used directly.	Store the memory card data using GD-SFT80 or GD-SFT80W then read and convert the data using V-SFT.
Protective screen filter	[GD-GS81S]	[V606-GS]	———

V4 Series -> V6 Series

■ V4

Item \ Model	V4	V6	Countermeasures
Compatible model	V4T (TFT color) V4C (STN color) V4W (White mode) V4B (Blue mode) V4H (Semi-transparent yellow)	V610T (TFT color) V610C/V608C (STN color)	—
Effective display area	10.4"	V610T/C 10.4" V608C 7.7"	—
Panel cutout dimensions (Unit: mm)	317 W x 229 H	V610T/C 289 W x 216.2 H	Use panel adapter "PAD-V610" (product of Hakko Electronics: option).
		V608C 220.5 W x 165.5 H	Use panel adapter "PAD-V608" (product of Hakko Electronics: option).
Resolution for display	640 W x 480 H (dots)	640 W x 480 H (dots)	—
Resolution for touch switches	40 (W) x 24 (H) switches (Matrix type)	V610T/C 1024 (W) x 1024 (H) (Analog type) 40 (W) x 24 (H) (Matrix type)	—
		V608C 1024 (W) x 1024 (H) (Analog type)	—
External I/O terminals	With RUN, STOP and BZ terminals	RUN, STOP and BZ terminals are not available.	None
RS-422 terminal	Available	Not available	Use terminal converter "TC485" (product of Hakko Electronics: option).
Screen data transfer cable	Connected to D-sub 25-pin connector. [GD-CP] [GD-CPV]	Connected to modular jack. Accordingly, the cable prepared for V4 cannot be used.	Use screen data transfer cable for V6, "V6-CP" (product of Hakko Electronics).
Communication cable	Connected to D-sub 25-pin connector.	Connected to D-sub 25-pin connector. Accordingly, the cable prepared for V4 can be used.	—

Printer port	Centronics 14-pin connector Standard printer cable for PC-9801 is used.	Half-pitch 36-pin connector Accordingly, the printer cable prepared for V4 cannot be used.	Use printer cable for V6, "V6-PT" (product of Hakko Electronics).
Bar code reader connection	(Only for V4xx2/V4xx4/V4xx5) D-sub 9-pin connector is available.	Standard specification provides the connector for bar code reader.	Use bar code reader cable for V6, "V6-BCD" (product of Hakko Electronics).
Memory card function	• Only for V4xx5/V4xx6 Compatible by using recorder, "GD-MREC02". • Only for V4xx2/V4xx4 Compatible using internal memory card interface.	• "GD-MREC02" cannot be used. • Only for V610x2 Compatible using internal memory card interface.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Storing screen data in memory card	Can be stored using recorder, "GD-MREC01".	"GD-MREC01" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Memory card "REC-MCARD"	FLASH ROM	Cannot be used directly.	Read and convert the data using V-SFT.
	SRAM	Cannot be used directly.	■ If the memory card was used to store the screen data backup. Read and convert the data using V-SFT. ■ If the memory card function was used. Memory card can be used for V6 directly if the format is identical.
Analog RGB output	(Only for V4T2) Compatible	Not compatible	(For details, please contact us.)
External I/O	(Only for V4Tx3)	Standard specification provides the connector for external I/O. "E-I/O" (product of Hakko Electronics: option) or "V-I/O" (product of Hakko Electronics: option) is separately necessary.	——
Protective screen filter	[V4-GS]	V610T/C [V610-GS]	——
		V608C [V608-GS]	——

■ V4S

Item \ Model	V4S	V6	Countermeasures
Compatible model	V4SC (STN color)	V606iT(TFT color) V606C/V606iC (STN color)	Case colors are gray for V606 and black for V606i. (Case color can be specified for V4.)
	V4SW (White mode)	V606M (White mode)	
	V4SB (Blue mode)	V606iM (Blue mode)	
Effective display area	5.7"	5.7"	——
Panel cutout dimensions (Unit: mm)	199 W x 147 H	174 W x 131 H	Use panel adapter "PAD-V660" (product of Hakko Electronics: option).
Resolution for display	320 W x 240 H (dots)	320 W x 240 H (dots)	——
Resolution for touch switches	10 W x 6 H switches (Matrix type)	1024 W x 1024 H (Analog type) 20 W x 12 H switches (Matrix type)	——
Screen data transfer cable	Connected to D-sub 25-pin connector. [GD-CP], [GD-CPV]	Connected to modular jack. Accordingly, the cable prepared for V4S cannot be used.	Use screen data transfer cable for V6, "V6-CP" (product of Hakko Electronics).
Communication cable	Connected to D-sub 25-pin connector.	Connected to D-sub 25-pin connector. Accordingly, the cable prepared for V4S can be used.	——
Printer port	Centronics 14-pin connector Standard printer cable for PC-9801 is used.	Half-pitch 36-pin connector Accordingly, the printer cable prepared for V4S cannot be used.	Use printer cable for V6, "V6-PT" (product of Hakko Electronics).
Bar code reader connection	(Only for V4Sxx2) D-sub 9-pin connector is available.	Standard specification provides the connector for bar code reader. Connected to the modular jack.	Use bar code reader cable for V6, "V6-BCD" (product of Hakko Electronics).
Storing screen data in memory card	Can be stored using recorder, "GD-MREC01".	"GD-MREC01" cannot be used.	Use card recorder for V6, "CREC" (product of Hakko Electronics).
Memory card "REC-MCARD"	FLASH ROM/SRAM	Cannot be used directly.	Read and convert the data using V-SFTE.
Protective screen filter	[V4S-GS]	[V606-GS]	——

2 CONSIDERATIONS ON SOFTWARE

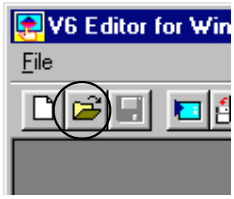
Procedure for converting the screen data files also largely differs depending on the models.
This section deals with conversion procedure and items that require special attention in details, for cases "GD-80 series -> V6 series" and "V4 series -> V6 series".

GD-80 Series -> V6 Series

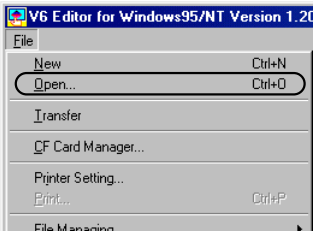
■ Converting the Screen Data Files

For the conversion of the screen data files into the V6 series compatible files, always use V-SFTE.

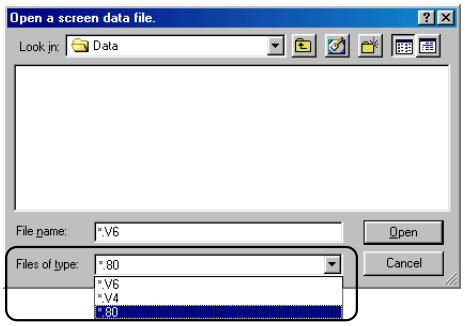
1. Click the [Open] icon, or select [Open] from the [File] menu.



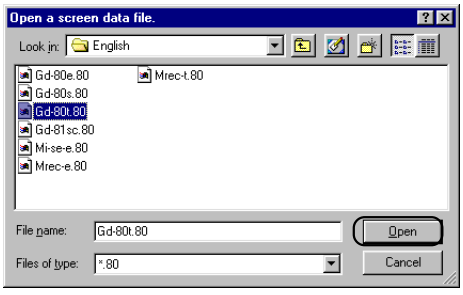
or

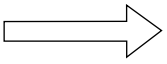


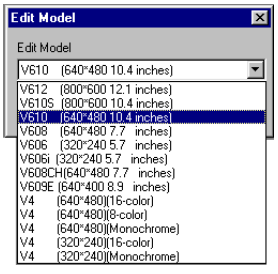
2. The [Open a screen data file.] dialog is displayed.
   Change the [File of type] to [*.80].



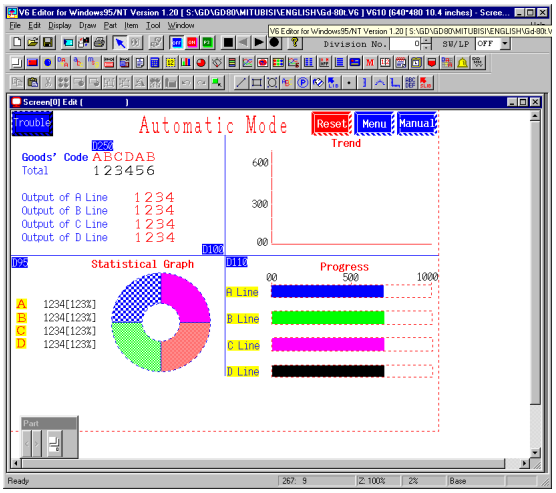
3. Specify the GD-80 screen data file to convert, and click [Open].
4. The [Edit Model] dialog is displayed.
   Select the model to be used after conversion, then click [OK].







5. The editor displays the screen data converted for V6 series.



■ Differences in screen size

Depending on the original and conversion target models, resolution of the screen may differ as shown in the table below.

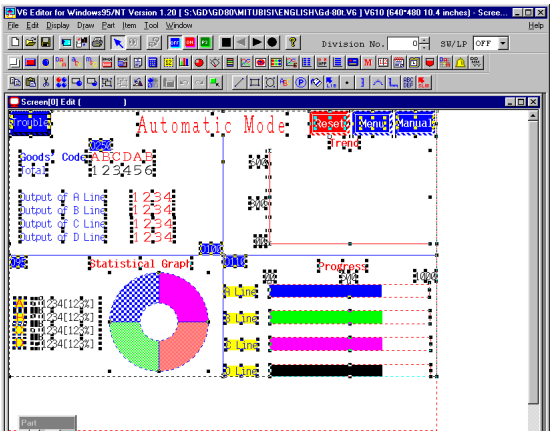
Model / Resolution W x H (Dots)	V610 640 x 480	V609E 640 x 400	V608 640 x 480	V606/606i 320 x 240
GD-80T 640 x 400	Size change necessary		Size change necessary	
GD-80E 640 x 400		○		
GD-80S 320 x 240				△
GD-81S 320 x 240				○

○ : No problems on resolution
△ : No problems on resolution, but dimensions differ.

■ Adjusting the size

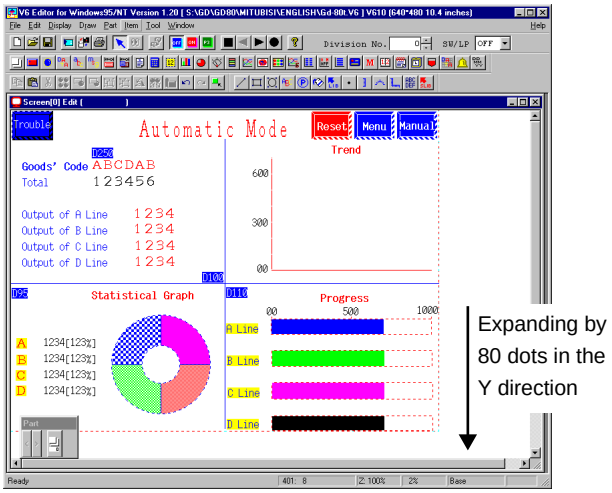
When converting the screen data of GD-80T into the analog switch type display for V610, enlarge the screen image after grouping the entire screen image as explained below. This allows the converted screen image to fit the new screen size in simple operation.

1. Cancel the ON grid ([Display] -> [ON Grind]) and switch grid ([Display] -> [Display Environment] -> [Grid] menu -> [☐ Snap on Switch Grids]) using the editor. Select and group all items on the screen.



2. Drag the handle at the lower right corner of the grouped item to fit the image size to the V6 screen size.

*** To change the screen image for V610 matrix switch type, the procedure above cannot be used since the switch grid positions may be offset.**



■ Cautions on conversion

Conversion contents are largely classified into four categories when converting the GD-80E screen data into the data for V609E.

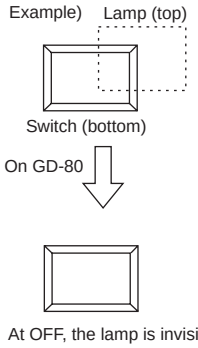
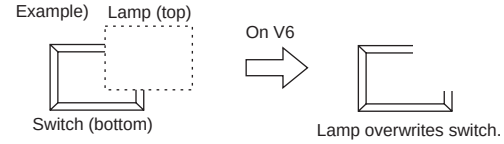
- ◆GD-80E compatible functions implemented by V-SFTE Ver.1.2.19.0
- ◆GD-80E compatible functions implemented by V-SFTE Ver.1.2.18.0
- ◆Data converted as GD-80 compatible data
- ◆Functions that cannot be converted as GD-80 compatible data (as of V-SFTE Ver. 1.2.19.0)

Described below are cautionary items to be taken into consideration for each conversion content.

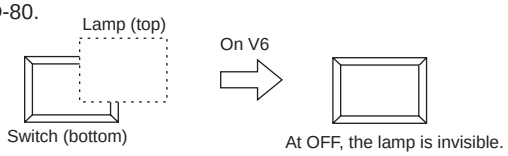
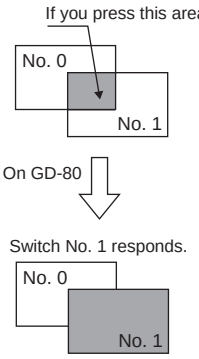
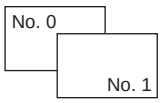
■ GD-80 Compatible Functions Implemented by Ver. 1.2.19.0

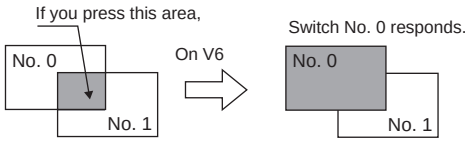
With the introduction of V-SFTE Ver. 1.2.19.0, several GD-80 compatible functions are added. Conversion of

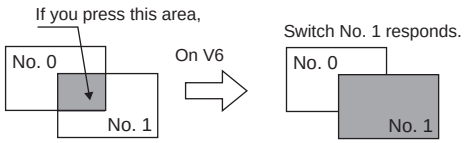
Item \ Model	GD-80E	V-SFTE Ver. 1.2.19.0
Overlap	• Normal Registered in DIV0 and other functions are registered in other DIV numbers. (May be used as multi-overlap)	<Previous version> Only registered in the screen as normal overlap. To use the normal overlap as multi-overlap, it is necessary to register this normal overlap to [Multi-Overlap Edit]. <1.2.19.0> Possible With the normal overlap converted on the screen left as is, the overlap is copied to the [Multi-overlap Edit] of the same number as the screen number. (Conversion of the screen for which only normal overlap is registered in DIV0 is processed in the same manner as before. See P3-14.)

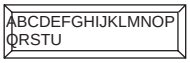
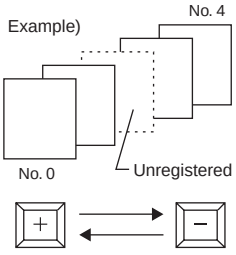
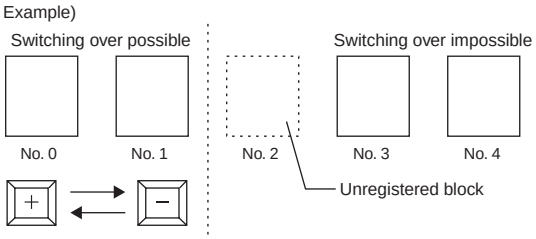
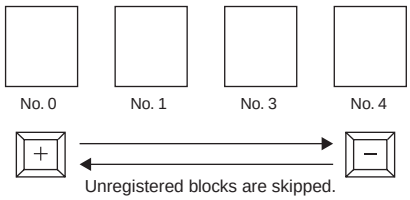
<table>
<tr><th>Item \ Model</th><th>GD-80E</th><th>V-SFTE Ver. 1.2.19.0</th></tr>
<tr><td>Switches/Lamps</td><td>When a switch/lamp having the same OFF color as the background color is set, the objective displayed in the OFF color is invisible.
 
</td><td><Previous Version>
On the editor or MONITOUCH, display is always given i n the state the switch/lamp set on top overwrites the one set at bottom.
 

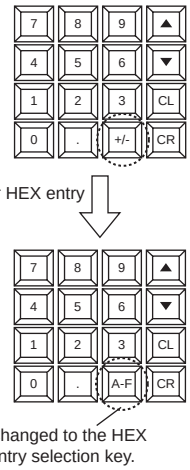
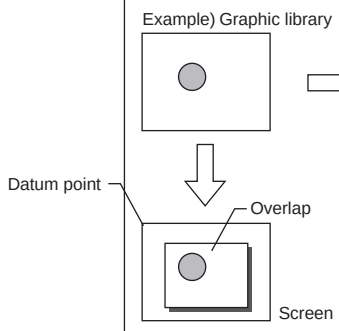
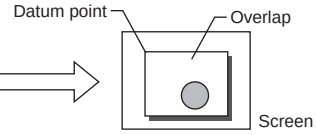
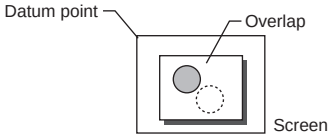
<V1.2.19.0>
Possible
By checking [Not paint when OFF color of switch/lamp is the same as background color] in the [GD80 Compatible] tab window of [Others]

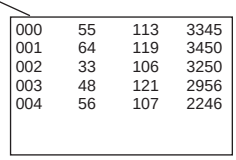
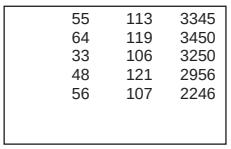
Although overwriting occurs on the editor as the previous version, display on V6 is given in the same manner as GD-80.
 
</td></tr>
<tr><td>Switches</td><td>In the state two switches overlap with each other, the switch assigned a larger number (or a larger DIV No.) responds when the switch overlapping area is pressed.
 
</td><td>After the conversion, the switch assigned a larger number (or a larger DIV No.) comes top over the one assigned a smaller number (or a smaller DIV No.) on the editor.
 

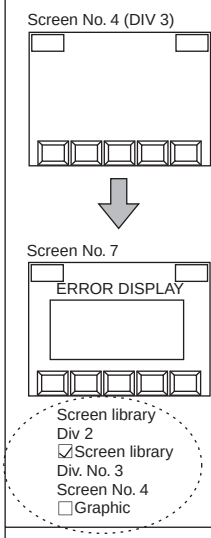
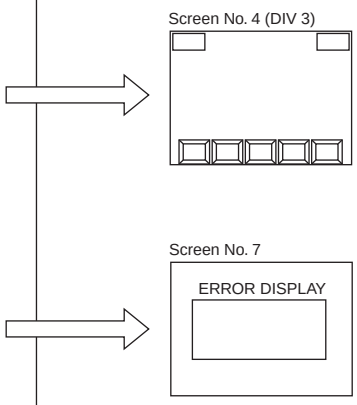
<Previous Version>
Pressing the overlapping area causes the switch set bottom to respond.
 

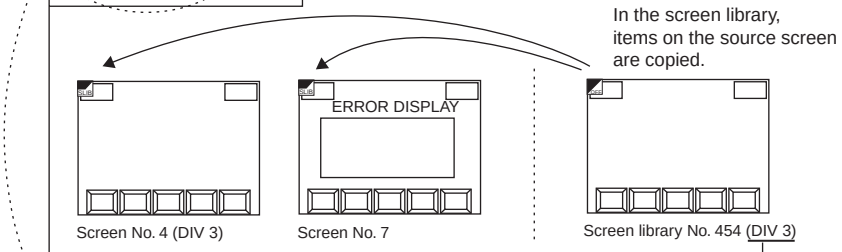
<V1.2.19.0>
Possible
By checking [Make the upward switch effective when switches are overlapped] in the [GD80 Compatible] tab window of [Others]
 
</td></tr>
</table>

Item \ Model	GD-80E	V-SFTE Ver. 1.2.19.0
Relay mode / Page mode / Direct mode ([Action: Switch/ Lamp])	If a message overflows the switch/lamp area, overflowing characters are not displayed. Example) Switch  Actually, characters “P...U” continue after “O.”	<Previous Version> If a message overflows the switch/lamp area, overflowing characters are continuously displayed in the second line. On V6  Message is displayed in multiple lines. <V1.2.19.0> Possible By checking [Making messages same as in GD80 when [Action area] is [Switch/Lamp]] in the [GD80 Compatible] tab window of [Others] 
Switching over of numeric data blocks (Numeric key mode, [Action: Plus block/Minus block] switch)	Switching over is processed even when unregistered numeric data blocks exist between [Start No.] and [End No.] of switching over target [Block No.].  All blocks, including unregistered blocks are switched over.	<Previous Version> If an unregistered numeric data block exists within switching over target block range specified by [Start No.] and [End No.], block switching over processing is suspended at an unregistered block.  Switching over is impossible for blocks that appear after the unregistered block. <V1.2.19.0> Possible By checking [Skip the tenkey block which does not exist when operating + or - block switch] in the [GD80 Compatible] tab window of [Others]  Unregistered blocks are skipped.

Item \ Model	GD-80E	V-SFTE Ver. 1.2.19.0
Switching the numeric keypad to HEX data entry keys	The [-/+] key in the numeric keypad is automatically changed to the HEX entry selection key. Example) 	<Previous Version> The [-/+] key in the numeric keypad is not changed to the HEX entry selection key automatically. It is necessary to set the HEX entry selection key ([Function: Graphic Library]) for the individual appearances. <V1.2.19.0> Possible The [Change GD80 Compatible HEX Key] item is added to [Function]. Identical operation as with GD-80 (as shown in the left)
Graphic relay mode on overlap	When a graphic relay is set on an overlap, the registered graphic is displayed in reference to the datum point of the screen. 	<Previous Version> For the display of the graphic relay on an overlap, the registered graphic is displayed in reference to the datum point of the overlap.  <V1.2.19.0> Possible By checking [Regard the original of graphic relay on an overlap as the origin of a screen] in the [GD80 Compatible] tab window of [Others] 

<table>
<tr><th>Item \ Model</th><th>GD-80E</th><th>V-SFTE Ver. 1.2.19.0</th></tr>
<tr><td>Data sampling</td><td>The count data is displayed in the leftmost column.
 
<table>
<tr><td>000</td><td>55</td><td>113</td><td>3345</td></tr>
<tr><td>001</td><td>64</td><td>119</td><td>3450</td></tr>
<tr><td>002</td><td>33</td><td>106</td><td>3250</td></tr>
<tr><td>003</td><td>48</td><td>121</td><td>2956</td></tr>
<tr><td>004</td><td>56</td><td>107</td><td>2246</td></tr>
</table></td><td><Previous Version>
The count data is not displayed, but the leftmost column is left blank.
 
<table>
<tr><td></td><td>55</td><td>113</td><td>3345</td></tr>
<tr><td></td><td>64</td><td>119</td><td>3450</td></tr>
<tr><td></td><td>33</td><td>106</td><td>3250</td></tr>
<tr><td></td><td>48</td><td>121</td><td>2956</td></tr>
<tr><td></td><td>56</td><td>107</td><td>2246</td></tr>
</table>
<V1.2.19.0>
Possible
By converting data [No. 15] on [Sampling Display Area] automatically to count display area.
[Sample Count] item is added to the [Data [15]] dialog.

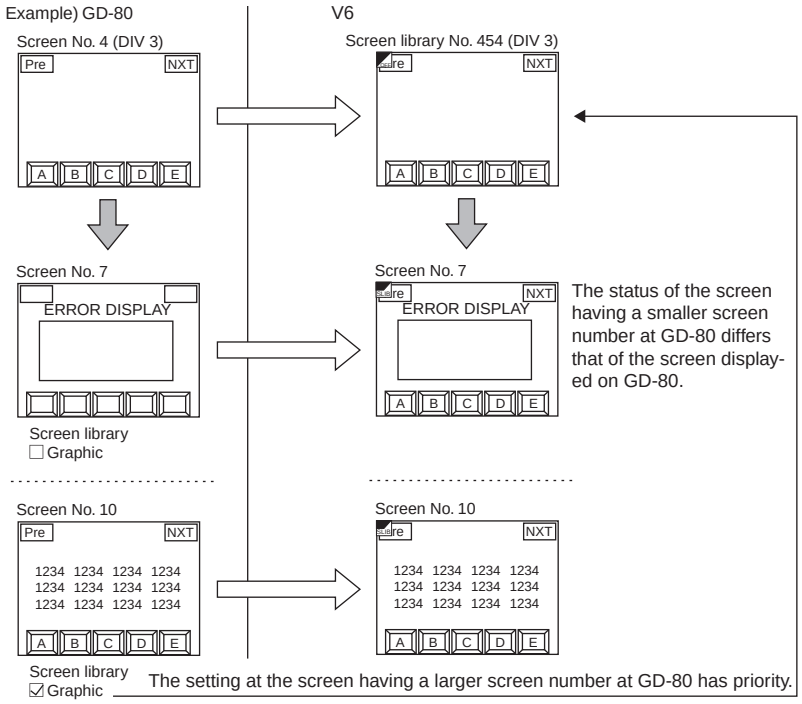
* The count position setting [C], necessary for printing the sampling data, is automatically converted to [15] for printing the count data. (In message editing)</td></tr>
<tr><td>Screen library</td><td>Example)
Screen library is set in the following manner
 
</td><td><Previous Version>
Not converted as the screen library
 

<V1.2.19.0>
Possible
Screen library is converted as shown below.
 

Screen calls are set on the individual screens (source screen of GD-80 and target screen).

How to calculate the screen library No. after conversion:
Screen library No. = Original screen No. + DIV No. x 150
= 4 + 3 x 150
= 454</td></tr>
</table>

--> Continued (Screen library)	If [Graphic] is checked for screen library at GD-80, the graphics is moved to screen library at V6. However, if the same screen library is used with [Graphic] checked and unchecked at GD-80, the setting for the screen assigned a larger screen number has priority.



■ GD-80 Compatible Functions Implemented by Ver. 1.2.18.0

Item \ Model	GD-80E	V-SFTE Ver. 1.2.18.0
Continuous buzzer sound	The buzzer keeps sounding while read area n, bit 10 is ON.	Possible By checking [Use continuous buzzer sound] in the [GD80 Compatible] tab window of [Others]
Overlap bit command	Overlap is displayed while read area "n+1", bit 12 is ON. (The overlap is kept displayed even if the display is changed.)	Possible By checking [Display an overlap be level of ON bit] in the [GD80 Compatible] tab window of [Others] With check mark : Same operation as GD-80. Without check mark : Bit 12 setting is recognized at the signal edge. (Even if the bit is set ON, the overlap is cleared when the display is changed.)
Numerical data display	In the case of overflow, lower digits are displayed. Example: D100 = D1234 4-digit display: 1234 2-digit display: 34	Possible By checking [Num. Data Display: display the significant figures when overflowing] in the [GD80 Compatible] tab window of [Others] With check mark : Same display mode as with GD-80. 4-digit display: 1234 2-digit display: 34 Without check mark : Display is given in the manner shown below. 4-digit display: 1234 2-digit display: --

Item \ Model	GD-80E	V-SFTE Ver. 1.2.18.0
Numerical data display	In the setting of [Code: BCD], display at the GD-80 is as shown below. PLC side: 0 to 9, A, B, C, D, E, F GD-80 side: 0 to 9, ., :, -, +, (space), (space)	Possible By checking [Num. Data Display: display special characters instead of A to F when BCD is selected] in the [GD80 Compatible] tab window of [Others] With check mark : Same display mode as with GD-80. Without check mark : "A" - "F" are always displayed in "0."
Character 1/ Character 2	Usage differs between Character 1 display and Character 2 display. <Character 1 display> • 1-byte characters and 2-byte characters are distinguished. • For 1-byte characters, NULL code is processed as indicated below. (In LSB --> MSB) D100 = H0041 D101 = H4443 A␣CD H 41 00 43 44 D100 = H4200 D101 = H4443 ␣BCD H 00 42 43 44	Conversion is made in [Char. Display]. Compatibility to character display on GD-80 is possible by checking [JIS/ASCII] of the [Detail] tab window. <Character 2 display: ☐ JIS/ASCII> • Unlike GD-80, NULL code is processed as indicated below. Character-string following "00" is not displayed. A␣␣␣ H 41 00 43 44 Character-string following "00" is not displayed. ␣␣␣␣ H 00 42 43 44 <Character 1 display: ☑ JIS/ASCII> • In case of [◉ 1-byte] Same display as GD-80 Same NULL code processing
Character entry mode	Continuous entry of characters is permitted even after pressing the [ENT] key.	Possible By checking [Clear characters when a cursor is on the first character in Character Entry Mode] in the [GD80 Compatible] tab window of [Others]
Calendar display	Message representing day of week is registered in message edit	Possible Calendar is converted as [Calendar parts] and the message in the message edit is automatically copied to and registered in the [Week] tab window in the calendar parts.
Bar code reader	[Read Data] to be entered in the memory address set for [I/F Memory] of [Bar Code Setting] is "word units."	Possible By checking [Output the number of data read by a bar-code reader by words] in the [GD80 Compatible] tab window of [Others] With check mark : Same display as GD-80. Without check mark : To be output in byte units.

■ Data converted as GD-80 compatible data

There are notes on converting GD-80 to V6 in some functions that are possible in V-SFTE before adding V609E to V6 series line up.

Basically, these functions are automatically converted as GD-80 compatible functions.

Item \ Model	GD-80	V6
Read/Write Area	—	Possible [Main 1] tab window of [Comm. Parameter] Check [Read/Write Area GD-80 Compatible].
Background of screen	• Screen with only background color • Screen with only background graphics • Screen with both background color and graphics	--> Converted as unregistered screen --> Converted as a screen with a graphic call --> Converted as a screen with a background color and a graphic call
Overlap	• Normal No items are registered in a screen except an overlap in DIV0. • Other items except an overlap are registered in other DIV, or an overlap is not registered in DIV0.	--> An overlap is registered in the same number of a multi-overlap edit as one of a screen in GD-80 automatically. --> An overlap is registered as a normal overlap in a screen. And an overlap is also registered in the same number of a multi-overlap edit as one of a screen in GD-80 automatically. (Possible in V-SFTE Ver. 1.2.19.0 or later Refer to page 3-7.)
Switch/Lamp	[Frame type: graphics]	[Graphic Call] is automatically set on the screen for creating/editing switch/lamp parts.
Switch	[Switch Memory] of the following [Function]: [Normal] [Block] [+/- Block] [Mode] [Bit Operation]	--> Converted to [Output Memory].
Relay mode	• DIV0 • DIV1 • DIV2 • DIV3	--> Converted to [Relay Info. Output] as Write Area n+5. --> Converted to [Relay Info. Output] as Write Area n+8. --> Converted to [Relay Info. Output] as Write Area n+11. --> Converted to [Relay Info. Output] as Write Area n+14.
Tenkey mode	—	Entry mode • The contents of [Command Memory] are the same as that of GD-80. • Write Area n+2 is automatically specified for [Info. Out Mem]. • Charaters in a keypad [0] to [9] and [.] are converted to the drawing characters on a screen. [0] to [9] and [.] are also stored in [Char. Entry] in the [Switch] dialog in 1-byte character. The characters within the switch are placed off the screen so that they do not cover the drawing characters.

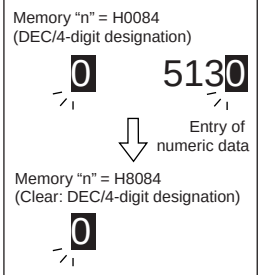
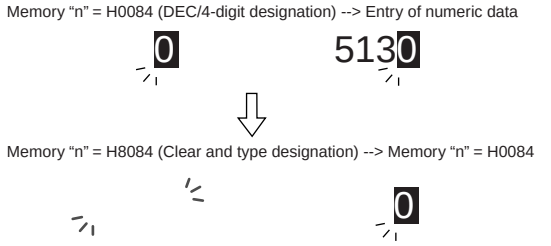
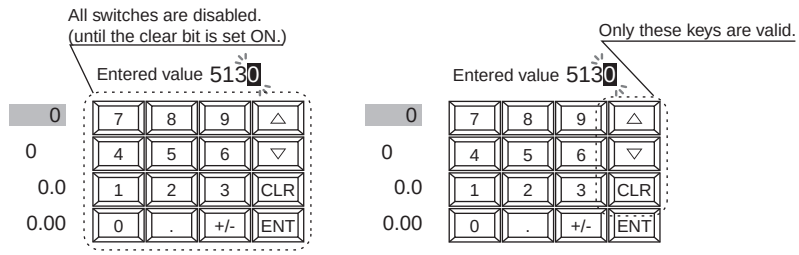
<table>
<tr><th>Item \ Model</th><th>GD-80</th><th>V6</th></tr>
<tr><td>Tenkey mode</td><td>[Type: Direct]</td><td>• [Type: Direct]
• For numerical displays on a screen, [Display Function: No] is set.</td></tr>
<tr><td></td><td>[Type: Indirect]</td><td>• [Type: Data Display]
• [Target Memory: Output Memory]
• [Input Item Select: External]
• [GD80 Compatible: (checked)]
When there is no overlap, "4" is set. When there is an overlap, the DIV No. for the overlap of GD-80 is set.
• For numerical displays on a screen, [Display Function: Entry Target] is set. The number of [Order] is converted automatically as shown below.
<table>
<tr><th colspan="2">GD-80</th><th>V6</th></tr>
<tr><th>DIV No.</th><th>Data No.</th><th>Order</th></tr>
<tr><td>0</td><td>0 to 31</td><td>0 to 31</td></tr>
<tr><td>1</td><td>0 to 31</td><td>32 to 63</td></tr>
<tr><td>2</td><td>0 to 31</td><td>64 to 95</td></tr>
<tr><td>3</td><td>0 to 31</td><td>96 to 127</td></tr>
</table></td></tr>
<tr><td></td><td>[Type: Block]</td><td>• [Type: Block]
• [Target Memory: Output Memory]
• [Input Item Select: Internal]
• [GD80 Compatible] cannot be specified (but checked).
• The settings of tenkey blocks are set in DIV4 as settings for [Data Block Area] mode.
[Data Block Area] mode
· [Division No: 4]
· [Command: Internal]
· [Initial Block/Min. Block: (Set the number of [Start].)]
· [Max. Block: (Set the number of [End].)]
· [Item Select: (unchecked)] (Set if necessary.)
· [GC80 Compatible: (checked)]</td></tr>
<tr><td></td><td>[Type: Block Direct]</td><td>• [Type: Block]
• [Target Memory: Direct]
• [Input Item Select: Internal]
• [GD80 Compatible] cannot be specified (but checked).
• The settings of tenkey blocks are set in DIV4 as settings for [Data Block Area] mode.
[Data Block Area] mode
· [Division No: 4]
· [Command: Internal (same as GD-80)]
* When [Command: External] is set, the address of [Block No. Read Mem.] is the same as of [Command Memory] in [Entry] mode.
· [Item Select: (checked)]
* Specify the same number as [Command Memory] n+1 and choose [2] words.
· [GD80 Compatible: (checked)]</td></tr>
<tr><td></td><td>[Type: Multi]</td><td>• [Type], [Target Memory], [Input Item Select], [GD80 Compatible] are set same as that in case of [Type: Block Direct].
• The settings of tenkey blocks are the same as that of [Data Block Area] mode in case of [Type: Block Direct].
* When [Command: External] is set, the address of [Block No. Read Mem.] is the same as of [Command Memory] in [Entry] mode. When the overlap containing the keypad is stored in another screen (= multi-overlap is used), [Block No. Read Mem.] is temporarily set in [$u4000]. Be sure to change it from [$u4000] to the address of [Command Memory].</td></tr>
</table>

<table>
<tr><th>Item \ Model</th><th>GD-80</th><th>V6</th></tr>
<tr><td>Character Entry mode</td><td>—</td><td>Entry mode
• [Type: Data Display]
• [Command Memory: (same as [Memory] in GD-80)]
• [Info. Output Mem: (converted to Write Area n+2)]
• [Target Memory: Direct]
• [Input Item Select: Internal]
• [Detail] tab window
[Use Graphic: (checked)]
(Both [Start Graphic] and [End Graphic] are automatically set same as [Initial Graphic No.] of [Charater Entry] mode in GD-80.
If necessary, specify [End Graphic] later.)
• For character displays on a screen, [Display Function: Entry Target] is set.</td></tr>
<tr><td>Statistics graph mode</td><td>—</td><td>• The DIV No is converted as follows.
<table>
<tr><td>DIV No.</td><td>0</td><td>1</td><td>2</td><td>3</td></tr>
<tr><td>Graph No.</td><td>0 1 2 3</td><td>0 1 2 3</td><td>0 1 2 3</td><td>0 1 2 3</td></tr>
<tr><td>V6 DIV No.</td><td>0 10 11 12</td><td>1 20 21 22</td><td>2 30 31 32</td><td>3 40 41 42</td></tr>
</table>
• For [Result Display: checked], the numerical display [Display Function: No] is set in the same DIV No. as that of a statistics graph. [Memory] of each numerical display is the same as [Memory] of the graph.
• For [% Display: checked], the numerical display [Display Function: Display Statistics Graph %] is set in the same DIV No. as that of a statistics graph.</td></tr>
</table>

■ Incompatible Functions after Conversion

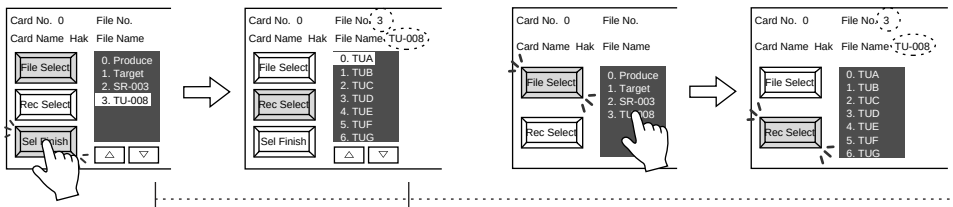
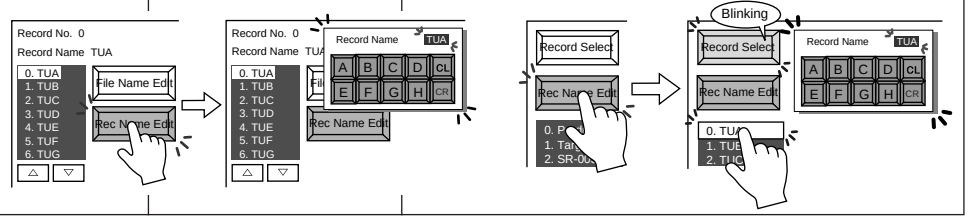
There are functions for which compatibility with GD-80 cannot be maintained after converting to V6.
The following describes these functions

Item \ Model	GD-80	V6
General-purpose serial communication	General-purpose serial communication protocol, special to GD-80, is used.	Impossible Since the general-purpose communication protocol, special to V series, is used, the protocol is not compatible.
Communication parameter	Baud rate 1200 and 2400 bps are available.	Impossible Both baud rates are automatically converted to 4800 bps.
Display characters	Characters to be displayed are not influenced by “Enlarge X/Y” setting.	When an even value is set for “Enlarge X/Y,” such characters are automatically displayed in 32-dot font. Accordingly, displayed image will somewhat differs from the characters displayed at GD-80.
Overlap [Type: Multi]	Memory “n”: Indicates the screen No. where the displayed overlap is registered. When the overlap is cleared, the screen No. entered last remains in memory “n.”	Memory “n”: The number in the [multi-overlap edit] in which the displayed overlap is registered. When the overlap is cleared “-1” (= HFFFF) is set in memory “n.”
Character-string of switch/memory	Character-strings are created in graphics.	Character-strings are converted as graphics. They are not converted as character-strings in the [Switch] (or [Lamp]) dialog.

<table>
<tr><th>Item \ Model</th><th>GD-80</th><th>V6</th></tr>
<tr><td>Numeric key mode
[Type: Direct Command]</td><td>Memory “n”:
Clear (bit 15)
The write flag and displayed value of numeric data entry are cleared at the timing this bit is turned ON (0 --> 1).
 
</td><td>Input mode [Command Memory]: n
Clear (bit 15)
When this bit is turned ON, the write flag is cleared, and the display of entered data itself is also cleared.
Entry is enabled when data type and the digit number, etc. are designated after turning OFF the clear bit (bit 15).
 
</td></tr>
<tr><td>Numeric key mode
[Type: Block Entry]</td><td>Memory “n”:
Clear (bit 15)
After the entry of numeric data using the numeric keypad, the keys are completely disabled.
At the leading edge (0 --> 1) of bit 15, the write flag using the numeric keypad is cleared and the keypad disabled state is canceled.</td><td>Input mode [Command Memory]: n
Clear (bit 15)
After the entry of numeric data using the numeric keypad, entry for the same data item is not allowed. However, since the clear (CL) key is valid, the numeric keypad is enabled by pressing the clear key.
In addition, since the [UP] and [DW] keys are always valid, entry using the numeric keypad is accepted after moving the cursor to the next data entry objective data item.
To enter the data for the same data item continuously, this bit is valid</td></tr>
<tr><td colspan="3"> 
</td></tr>
<tr><td>Trend graph</td><td>Control Memory
Memory “n” specified by each [0 to 15 tab windows] (“n” exists by the number of display counts)

Graph value memory
Memory “n” (specified by each [0 to 15 tab windows]) + 1</td><td>Control Memory
Only “memory n” specified by No. 0 of graph at GD-80
(All graph broken lines are controlled by memory “n”)
* It is not possible to gain the totally identical control as GD-80.

Graph value memory
Memory “n” (specified by each [0 to 15 tab windows]) + 1</td></tr>
<tr><td>Sampling
(Bit / Data / Trend)</td><td>During scrolling in the sampling data area using the [Roll Up]/[Roll Down] /[Plus Block]/[Minus Block] switch, nothing is displayed in the display area.</td><td>During scrolling in the sampling data area using the [Roll Up]/[Roll Down]/[Plus Block]/[Minus Block] switch, the cursor is displayed and the data currently selected can be recognized.</td></tr>
</table>

Item \ Model	GD-80	V6
Sampling (Trend)	Count value is displayed only at V6. Count of the zero position is displayed at the lower left area of the graph.	Numeric values [Display Function: Sample Count Display], [Digits: 3] and [Char. Type: 1/4] are set at the lower left area of the graph. The current count is displayed.
Sampling (bit)	A space of 1-byte character size is provided between the display in the area and the message.	A space of four 1-byte character size is provided between the display in the area and the message.
Memory card mode	Card No. /Card name /File name /Record name edit Edited and entered No./ name are once stored in the PLC memory.	Card No. /Card name /File name /Record name edit Impossible Since No./name is directly written in the memory card, nothing is stored in the PLC memory.
	Switch [Action] • [File Select] • [Record Select] • [Selection Complete] To select a file/record in the card, follow either of the procedures below. [File Select] -> (1) [Selection Complete] -> (2) [Selection Complete], or [Record Select] -> [Selection Complete]	Switch [Function] -> [File Select] -> [Record Select] -> (None) To select a file/record in the card, follow either of the procedures below. [File Select] -> (1)(2) (Press the display area) [File Select] -> [Record Select] -> (Press the display area) The operation “press the display area” is used instead of pressing the [Selection Complete] at GD-80.
		
	Switch [Action] • [File Name Edit] • [Record Name Edit] Press [File Name Edit] or [Record Name Edit] after selecting a file or a record, and the multi-overlap for which the character entry mode is set is displayed.	Switch [Function] -> [File Name Edit] -> [Record Name Edit] Select a file or a record after turning ON the [File Name Edit] or [Record Name Edit] switch, and the multi-overlap for which the entry mode is set is displayed.
		

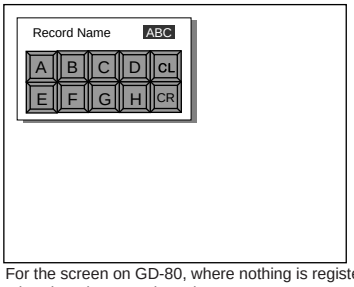
<table>
<tr><th>Item \ Model</th><th>GD-80</th><th>V6</th></tr>
<tr><td>Editing No./name in the memory card mode</td><td>• Multi-overlap is always used.
• Editing is impossible unless [Memory] bit 12 of the numeric keypad entry mode/character entry mode for No./ editing is set ON.
• An overlap is deleted when the [ENT] key is pressed and the card No. or the card name /file name/record name is entered</td><td>In the state after conversion, converted data cannot be used as it is.

Take the following into consideration.
1) In the state the normal overlap for [Type: Multi] is registered in the screen, the overlap is transferred to the same area of the screen No. of [multi-overlap edit].
2) The entry mode on the overlap is always changed to [Type: Memory Card].
3) [Num. Display] parts or [Char. Display] parts of [Display Function: Entry display] are always set in the same DIV as the entry mode on the overlap.
4) If [Data Block Area] is set on the overlap, it is deleted since it is unnecessary.
5) Name display parts are automatically converted in [Bytes: 3]. Therefore, setting should be changed if necessary.

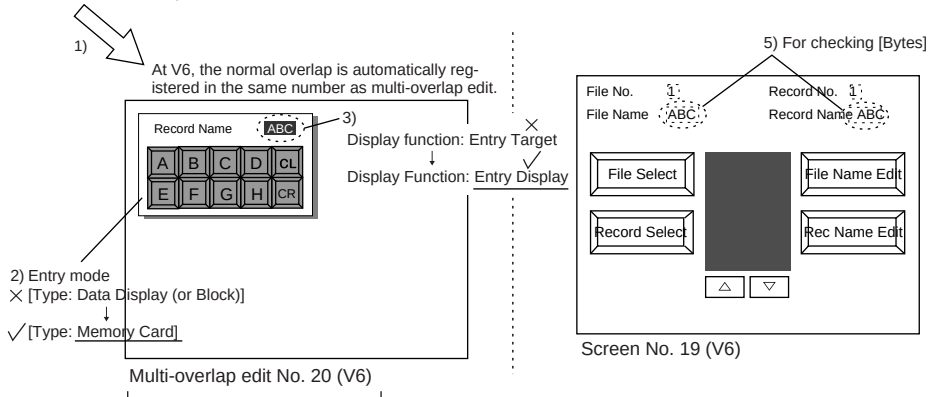
The memory card mode operates normally by the setting indicated above.

* [Command Memory] operation in the [Entry] mode is not necessary.</td></tr>
<tr><td>Line</td><td>Among the eight kinds of lines, four kinds of lines can be edited as needed.</td><td>Impossible
Six line kinds are provided in total and all of them are fixed.</td></tr>
</table>

Screen No. 20 (GD-80)



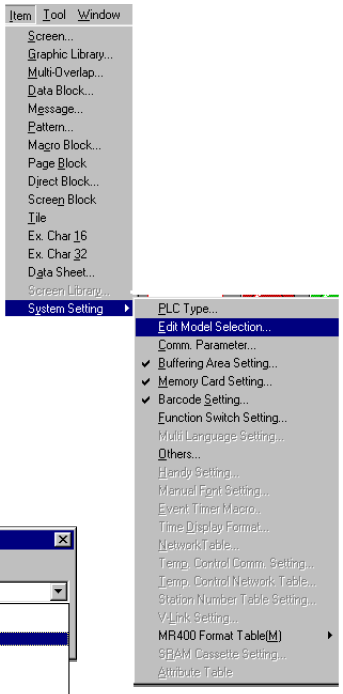
For the screen on GD-80, where nothing is registered other than the normal overlap.



V4 Series -> V6 Series

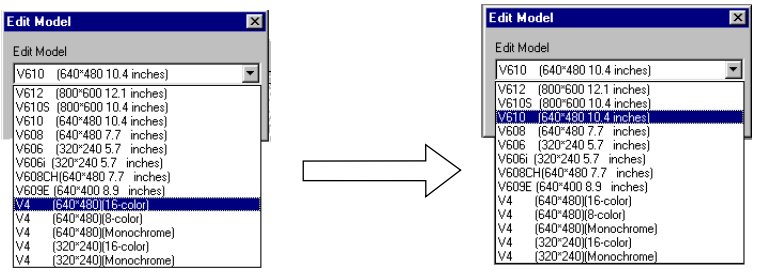
■ Converting the Screen Data Files

For the conversion of the screen data files into the V6 series compatible files, always use V-SFTE.

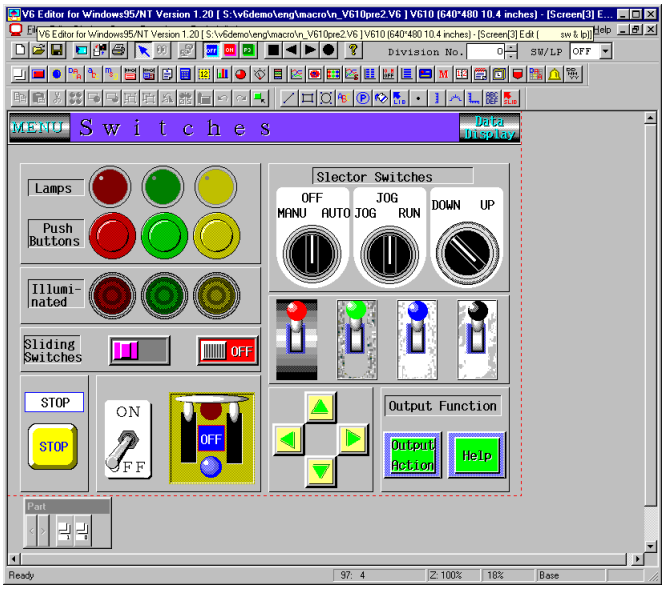


1. Open the V4 screen data file that you want to convert.
2. Go to the [Edit] menu and select [System Setting].

3. Click on [Edit Model Selection]. The [Edit Model] dialog is displayed.



4. Select the model to be used after conversion and click [OK]. The editor displays the screen data converted for V6 series.

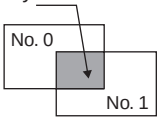
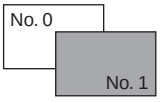
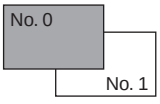


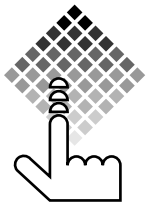
■ Difference in screen size

When converting the screen data file from V4 series to V6 series, there are no differences in resolution as shown in the table below.

Model / Resolution W x H (Dots)	V610 640 x 480	V609E 640 x 400	V608 640 x 480	V606/606i 320 x 240
V4 640 x 480	○		○	
V4S 320 x 240				○

■ Cautions on file conversion

Item \ Model	V4	V6
Overlap	Max. size 741,376 bytes	[V610T/C] Max. screen size: 307,200 bytes Max. overlap size: 921,600 bytes [V608C] Max. screen size: 307,200 bytes Max. overlap size: Area 1: 368,640 bytes Area 2: 307,200 bytes Total: 675,840 bytes If error message "Data has some error. No. 54" is displayed at V6, reduce the overlap size.
Switch output	Setting of [1 Output]/[2 Output] is possible at each screen.	[Analog switch type] Touching two points at the screen is disabled. Touching the function switch while touching the screen is permitted. [Matrix switch type] Setting of [1 Output]/[2 Output] is possible at each screen.
Switch [Action: ICON2]	Provided	Not provided [Action: ICON2] is automatically converted into [Action: ICON1].
Switch arrangement (Arranging 2 switches) If you touch here  	The switch arranged later is active. No. 1 is active.  	<Previous> The switch arranged first is active. No. 0 is active.  <1.2.19.0> To restore the same response as available with V4, select [☑ Make the upward switch effective when switches are overlapped] in the [GD-80 Compatible] tab window called by touching [Others].
Data display	If overflow occurs, upper digits are displayed. Example) D100 = 1234 4-digit display: 1234 2-digit display: 12	No data is displayed if overflow occurs. Example) D100 = 1234 4-digit display: 1234 2-digit display: --



MONITOUCH
V6

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