1. Numerical Data Entry

Create a numerical data entry screen on which you can enter numerical data using a pop-up keypad. On this screen, the keypad is not shown normally, but is shown only when necessary.

• Normal: Keypad is not shown

Numerical Data Entry						
D100 0	D105	+0	D110	0.0	D115 00	00
D101 0	D106	+()	D111	0.0	D116 00	00
D102 0	D107	+0	D112	0.0	D117 00	30
D103 0	D108	+0	D113	0.0	D118 00	00
D104 0	D109	+0	D114	0.0	D119 00	00

• When entering value: Keypad is shown.



The keypad is displayed with the overlap call switch placed over the numerical data display part.

The keypad disappears when you press the ENTER key.

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Creating a Screen

1. Editing Overlap Library

Create a display area in the overlap library and register a keypad. The overlap display registered in the overlap library can be used on any screen. It is useful for creating a keypad mode screen or a menu screen.



$\overline{\mathbf{\cdot}}$	

Over	ар	disp	lay i	formats	

Туре	Edit Window	Application
Multi-overlap	Overlap library	Applicable to all screens
Call-overlap		
Normal Overlap	Screen	Applicable to the screen only where the normal overlap display was placed

1.1 Creating an Overlap Display Area

1. Click [Overlap Library] selected from the [Registration Item] menu. The [Overlap Library] dialog is displayed.



2. Specify "0" and click [OK]. The editing screen of overlap library No. 0 is brought up.

Click the [Overlap] icon or select [Parts] → [Overlap] → [Normal Overlap]. A cross-shaped cursor and the overlap display area are displayed on the screen.



4. Click the mouse on the screen. The overlap display part is placed and the [Overlap] dialog appears.

🛁 Overlap Library [0] Edit	H()		
		Overlap	
	Place by clicking.	Main Style Detail Coord Gverlap ID 0	inates
		System Button	
	• • • • • • • • • • • • • • • • • • •		
			×

- 5. Set up the [Overlap] dialog for the overlap display.
 - [Main] tab window

Overlap 🛛
Main Style Detail Coordinates
Overlap ID 0
System Button

Item	Content	Setting Value
System Button	Check this box if you want to add the switch function (move/erase) to the top left corner of the overlap display. For more information on the operation, refer to "2.1 Displaying and Moving the Multi-overlap Display Part" (page 1-29).	Checked
Superimpose	Check this box when using the superimpose function. For more information on the superimpose function, refer to the Reference Manual (Chapter 2).	Unchecked

• [Style] tab window

	Overlap 🔀	
	Main Style Detail Coordinates Frame Type ine Color Frame I e Area I e Change Part	
	Content	
Sel	ect the frame type of the overlap display. This option may be	

Item	Content	Setting Value
Frame Type	Select the frame type of the overlap display. This option may be invalid depending on the parts you select.	Tile
Color Frame Area	Select the frame or area color.	Default
Change Part	Change the part type of the overlap display.	Default

• [Detail] tab window

Leave as default.

• [Coordinates] tab window

	Overlap Main Style Detail Coordinates Start X 240 Start Y 100 Width 324 Height 430	
Item	Content	Setting Value
Start X	Specify the X coordinate of the overlap start point.	240
Start Y	Specify the Y coordinate of the overlap start point.	100
Width	Specify the width of the overlap display.	324
Height	Specify the height of the overlap display.	430



The overlap display area has been created. Next, place the keypad.

1.2 Placing a Keypad

1. Select the overlap display. The handles appear around the overlap display.



- 2. Select [Parts List] from the [Parts] menu. The [Parts List] window opens.
- 3. Select [Keypad].

🖬 Part	s List - [Parts_F	leypadG	p_E.V7]		
Elle Edi	Elle Edit View System Setting Tool					
+ +	#0	[3D NUH]		~	~	
7	8	9	UP		^	
4	5	6	D₩		=	
1	2	3	CLR			
0		+/-	ENT			

- 4. Select the desired part using the [\leftarrow] or [\rightarrow] button or from the pull-down menu.
- 5. Drag the selected part onto the overlap display. The keypad is now placed.



1.3 Entry Icon

The [Entry] icon used for setting the details of the keypad is placed at the top left corner of the keypad. This icon must be always placed with the keypad. If the [Entry] icon does not exist or the setting is not correct, the keypad will not work correctly.



Checking the [Entry] lcon
 Select the overlap display. The handles appear around the overlap display.



2. Select the keypad. The red handles appear.

Overlop Librery (0) fdit ()	
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	a series de la companya de la compa
. The second	• • • • •
a la construction de la construction	
e la construction de la const	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1 1 1 1 1 1
Red handles	
- A B B C DW - C - C - C - C - C - C - C - C - C -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 A second sec second second sec	
	1 (1) (1) (1)
A second s Second second se Second second s Second second se	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
6	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 A second s	
	2



3. Click the [Entry] icon at the top left corner of the keypad. The [Entry] dialog is displayed.

The default setting is used in this chapter. For more information on settings, refer to the Reference Manual (Chapter 7).

1.4 Placing Other Parts

Place the numerical data display parts for displaying the entered value, maximum and minimum values in the overlap display.

Entry Display Part

- 1. Select the overlap display. The handles appear around the overlap display.
- 2. Click the [Numerical Display] icon. A cross-shaped cursor and the numerical data display part are displayed.



3. Click the mouse on the overlap display. The numerical data display part is placed and the item dialog is brought up.



- 4. Set up the [Num. Display] dialog for the placed part.
 - [Main] tab window



Item	Content	Setting Value
Digits	Specify the number of digits.	5
Decimal Point	Specify the number of decimal places.	1
Display Type	Select the format of the numbers displayed on the screen.	DEC DEC (w/o sign)
Zero Suppress	Check this box when using zero suppression. When checked (Flush Right): When unchecked: UUU12 000012 Space	Checked Flush Right
Function	Select a function.	Entry Display Part

• [Style] tab window

Specify text properties for the entered value.

You can arrange the part design by pressing the [Change Part] button.

• Operation/Alarm

When [Function: Entry Display Part] is selected, this setting is not available.

· [Detail] tab window

Item	Content	Setting Value
Process Cycle	Choose a process cycle.	High Speed
ID	Set the ID.	0

• [Coordinates] tab window Specify the coordinates.

♦ Max. Value Display Part/Min. Value Display Part

Follow the same procedure as the entry display part to place the maximum or minimum value display part. Select [Max Value Display Part] or [Min. Value Display Part] for the function of each part.

Main Style Operation/Alarm Detail Coordinates
Memory
Data Length 1-Word
Digits 5 🗢 Decimal Point 1 🗘
Display Type DEC (w/o sign)
Input Type OBCD BCD C Actual Number
Zero Suppress 🔿 Flush Left 💿 Flush Right
Function
No Function Entry Display Part
Min. Value Display Part Min. Value Display Part Entru Tarret
Statistic Graph % Display

1.5 Checking the ID

Check the ID of the part placed on the overlap display.

1. Click [Display Environment] from the [View] menu. The [Display Environment] dialog is displayed.

Ioolbar → View → Status Bar	Display Others Switch/Lamp Display III III V
	Switch/Lamp Display
Jump	Display Language 1
Skip to Non-registered Screen	Detail Display Memory Display Aver
Grid Zoom Display Environment	□ Usplay Area ♥ Display ID Number ♥ Display Paint □ Display Message
Redraw	□ Display Data Block ☑ Display Offset Mark ☑ Display MLIB/GLIB/SLIB Mark
	Restore Defaults

2. Check [
Display ID Number] for [Detail] and click [OK]. The ID is displayed at the bottom left of each part placed on the overlap display.



3. Check that the all IDs are set to "0". If a part having different ID from others is included, the keypad cannot work correctly. Correct the ID if needed.



1.6 Placing Text



Place the text for entered value/maximum value/minimum value displays.

- 1. Select the overlap display. The handles appear around the overlap display.
- 2. Click the [Text] icon. A cross-shaped cursor appears.
- 3. Click the mouse on the overlap display. The text box and the [Text] dialog is displayed.
- 4. Enter your desired text. Change the color and adjust the display position as required.



The overlap library editing has been completed. Move back to the [Screen Edit] window.



2. Editing the Screen

On the [Screen Edit] screen, place numerical data display parts where data is written, switch parts to call an overlap display, and multi-overlap display parts.



2.1 Placing a Multi-Overlap Display Part

- 1. Select [Parts List] from the [Parts] menu. The [Parts List] window opens.
- 2. Select [Entry] and [#0 3D NUM. Display].



3. Select the [Multi-overlap] icon and drag it onto the screen. The icon is placed and the [Multi-overlap] dialog is brought up.



Use the default setting in this chapter. For more information on the setting, refer to the Reference Manual (Chapter 2).

Creating a Screen

2.2 Placing a Numerical Data Display Part

- 1. Select [Parts List] from the [Parts] menu. The [Parts List] window opens.
- 2. Select [Entry] and [#0 3D NUM. Display].



3. Select a numerical data display part and drag it onto the screen. The numerical data display part is placed.



- 4. The [Num. Display] dialog is displayed. Set each item as required.
 - [Main] tab window

Specify the target memory and the function of the part.

	Style U	peration	n/Alarm	Detail	Coordinates
Memor	y				
Inte	ernal 🔽 💲	u 💙	0010	0 🗘	
Data L	ength 💽 1	-Word	024	Word	
Digits	5	De	cimal Po	oint 0	*
Display	Type D	EC (w/o	o sign)		*
nput 1	уре 🔘	BCD (⊙ DEC	OAct	ual Number
🗸 Zei	o Suppress	🔿 Flus	sh Left	📀 Flusł	n Right
Functi	on				
No Fu	nction			^	
Entry	Display Part	Б.			
Max. Min ∖	/alue Displa /alue Displa	iy Part i Part			
Entry	Target	ran			
Statis	ic Graph %	Display		~	

Item	Detail	Setting Value
Memory	Specify the memory address of the target.	D100
Data Length	Choose the data length of the target memory. Setting: 1-Word, 2-Word	1-Word
Digits	Specify the number of digits of the target memory. Setting value: 1 to 32	5
Decimal Point	Specify the number of decimal places. Setting value: 0: No decimal point 1 to 10: With decimal point (from the first to the tenth decimal place)	0
Display Type	Select the format of numbers to be displayed on the screen.	DEC (w/o sign)
Input Type	Choose the code to be used for reading the memory address.	DEC
Zero Suppress	Check this box when using zero suppression. Checked (Flush Right): Unchecked: ULUL12 00012 Space	Checked Flush Right
Function	Select the numerical data display function.	Entry Target
Order INC	Specify the order of cursor moving among multiple entry target parts.	0

• [Style] tab window

Set the part designing option as well as the character properties.

1

• [Operation/Alarm] tab window Set the alarm setting.

lum. Displ	ay	E
Main	Style Operation/Alarm Detail Coordinates	_
🗹 Alar	m	
Min.	Constar 🗸 DEC 🔽 0 🛟	
	Color Text 🛕 🕶 Background 🔛 🛛	
Max.	Constar 🗸 DEC 🖌 5000 🗘	
	Color Text 🛕 🕶 Background 🔛	
Wor	rd Operation) +(Data) X 1.(1)	
Sca		
Range	after Scaling 0(0) - 65535(0)	

Item	Detail	Setting Value
Alarm	Check this box when using the alarm function.	Checked
Min.	Specify the color displayed when the data reaches its minimum or when it falls short of the minimum.	0 Red
Max.	Specify the color displayed when the data reaches its maximum or when it exceeds the maximum.	50000 Blue
Word Operation	For more information, refer to the Reference Manual (Chapter 5).	Unchecked
Scaling		

- [Detail] tab window Leave as default.
- [Coordinates] tab window Specify the coordinates.

Nam Detail Co ▼ 0 0 D ▼ 00100 \$ \$ × Input Type BCD BCD DEC Actual Numb Zero Suppress Flush Left Flush Right

2.3 **Copying the Numerical Data Display Part**

Screen FOT Edit f

12345

1. Select the numerical data display part. The handles are shown around the selected part.

Mair

PLC Data Length
1-Word
2-Word Decimal Point 0

Digits 5 Display Type DEC (w/o sign)

Part

INC 15 *



Edit View Parts	Registration Item		
🕶 Undo	Ctrl+Z		
🖬 <u>R</u> edo	Ctrl+Y		
🔏 Cu <u>t</u>	Ctrl+X		
Съ⊆ору	Ctrl+C	OR	
Paste	Ctrl+V		
Paste to Selecte	ed Screen		
Undo Paste to S	Selected Screen		
<u>D</u> elete			
💦 Multi Copy			
Group	•		

3. Set up the dialog as shown below and click [OK]. The numerical data display part is copied.





4. Click [Display Environment] from the [View] menu. The [Display Environment] dialog is displayed.



 Check [
 Display Memory] and click [OK]. The memory address is shown at the bottom left of each numerical display part. In the following example, the addresses are set from D100 to D119.

12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 00113 12345 12345 00113 12345 000113 000113		
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12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345 12345	12345 000102	12345 000112 000112
12345 12345 12345 12345 12345 12345	12345 0001081	12345 0001181
	12345 000104	12345 000114



6. Modify the settings for each numerical data display part. In this example, set as shown below.

The setting for the entry target has been completed.

2.4 Placing an Overlap Call Switch Part

Place the invisible overlap call switch part over the numerical data display part.

- 1. Select [Parts List] from the [Parts] menu. The [Parts List] window opens.
- 2. Select [Entry] and [#0 3D NUM. Display].



3. Drag the invisible switch part (shown with dotted frame) onto the screen. The [Switch] dialog is brought up.

📮 So	creen [0] Edit ()						
							<u> </u>	
н н. 1								
		🛛 🖬 kana kana				🖬 Parts List	- [Parts_EntryMode_E.	
1.1	1999 - 1999 -					Eile Edit Vier	w System Setting Tool	
						0 🗳 🖪	Entry	💙 💵 OFF 👻 100%
						(€) ●	#O [3D NUM.Display]	× ×
1.1	1					•		^
			Drag.			f		
1.1	(1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	100	and the second se	1007 5	1000			1
		000100	000105	1234.3 000110	000115	1234	1234567890	
1.1		12345	+12345	1234.5	State State	92299	1449301000	
1.1		000101		000111	000118	225577	- 400VE07000	
		12345	+12345	1234.5	FFFF 000117	1754	1204007030	
1.1	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	12345	+12345	1234.5	STATE OF STATE	(ARALIA	A MANEATAAN	
		0001031	000108	000113	000118	012340	1234567890	
1.1	1	12345	+12345 .	1234.5	FFFF			
			· · · · · · · · · · · · · · · · · · ·			(1234)	1234567890	
1.1						<		>
						-		
<			Ш					
					500 00 7 400W			
Ready					od3 : -39 Z: 100%			1

4. Check [Display Position] in the [Main] tab window of the [Switch] dialog. In this example, [X Coordinate: 0] and [Y Coordinate: 0] are set, thus the [MLIB] mark is displayed at the coordinate of [0:0].



Keyword

This symbol indicates the display position of the multi-overlap display part.

5. Specify the coordinate as [X Coordinate: 420] and [Y Coordinate: 160]. The "MLIB" symbol moves to the coordinate of [420:160].



1-23

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The display position of the "MLIB" symbol can also be specified by using the [Specify with Mouse] button.

1) Click the [Specify with Mouse] button. A cross-shaped cursor and the overlap display box are displayed on the screen.



- Click the mouse on the position where the box does not exceed the screen area. The "MLIB" symbol moves to the position where you click the mouse.
 - Screen F01 Edit (P Style Main Tex Output M **P** 🗌 Lamp M 12345 +12345 1234.5 12345 +12345 1234.5 12345 +12345 1234.5 12345 +12345 1234.5 12345 +12345 1234.5 dinate 120 🗯 Y Coordinate 💷 🗯 ×Со
- 6. Adjust the size of the switch to be placed over the numerical data display part "D100".
- 7. Follow the same steps to place the switch part over the numerical data display part "D110".

8. Specify the coordinate as [120:160] for [Display Position]. When this switch is pressed, the multi-overlap display placed on the left is displayed.

2.5 Copying the Switch Part

Copy the overlap call switch part.

1. Select the part placed at the left side. The handles are shown around the selected part.



2. Click [Multi Copy] from the [Edit] menu or click the [Multi Copy] icon on the toolbar. The [Multi Copy] dialog is displayed.



3. Set up the dialog as shown below and click [OK]. The switch part is copied.

⊙ Dot OLine/Column	 Interval 	O Pitch	1
Direction	×	95	•
999	Y	2	^
600	Quantity X	2	
Change Direction	Quantity Y	5	*
Order INC		- 1	
Display Order INC		р <u>г</u>	×
Memory INC	e No. +1 📃 F	Record No)), +1
PLC 🔽 🔍 🗘 D	• 00000 😂	0	
PLC 💙 0 🗘 D	v 00000 😂	0	
NC VI CD	V 00000 😭		

Scr	een [0] Edit ()	
	la ser <u>s</u> a ser	
	a na ana 🔛 na	
	LIB	LIB
	and a second	and the second second second
	<u>12345</u>	1234.5
	12345	1234.5
		E contraction
	12345 +12345 -	1234.5
	12345 +12345	1234.5
	and the second	and the second sec
	12345 +12345	1234.5
	and the second	and the second



4. Adjust the size of the switch parts placed on the second column from the left.

5. Select the switch part placed on the second column from the right. The handles are shown around the selected part.

		Sardo Sardo
2	·	Syle Detail Coordinates Man Text Marco Output Marco Output Marco Output Marco Output Marco Output Marco Dutput Action Homentary V V
12345 12345 12345 12345 12345 12345	12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5 12345 1234,5	Concer Days Menory Concer Days Menory and Leve Menory Factors References R
	· · · · · · · · · · · · · · · · · · ·	

6. Click [Multi Copy] from the [Edit] menu or click the [Multi Copy] icon on the toolbar. The [Multi Copy] dialog is displayed.



- 1
- Creating a Screen

7. Set up the dialog as shown below and click [OK]. The switch parts are copied.



8. Adjust the size of the switch parts placed on the extreme right.

[0] Edit ()		
		a service a service ser
1 - 1 - 1 🛱 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
n an an an an <mark>Lib</mark> han an an an an an an an		a service a service service a service of the servic
12345 *	2345 1234.5	CONTRACT OF A
12345	2345 1234.5	Contraction of the second s
12345	2345 1234.5	
12345	12345	Adjust.
100103	E	
1/2040 0001041	2340	
		×
-		2

The switch parts have been placed.

2.6 Placing Text



Place text showing the screen title and the memory number.

- 1. Click the [Text] icon. A cross-shaped cursor appears.
- 2. Click the mouse on the screen. The text box and the [Text] dialog are displayed.
- 3. Enter your desired text. Change the color and adjust the display position as required.



The screen editing has been completed. Transfer the screen data and check the operation.

Operation Check

1. **Memory Allocation**

The following memory addresses are used in this example.

Memory	Memory Contents	
D100 to 119	Numerical data display (entry target)	
\$u16330 *	Entry mode (command memory)	
\$u16340 *	Entry mode (information output memory)/multi-overlap (information output memory)	

* When controlling the entry mode or using information output memory, use different address from the above.

Operation 2.

2.1 Displaying and Moving the Multi-overlap Display Part

1. Press the numerical data display part on the screen. The overlap display appears and the cursor is displayed on the numerical data display part.



2. Press the top left corner of the overlap display. The overlap frame blinks.

Numerical	Data Entry	
D100 0 D105 +0 D101 0 D106 +0 D102 0 D107 +0 D103 0 D108 +0 D104 0 D109 +0	Max. 50000 Nin. 0 Key-in 0 0 F 0 0 F 0 0 F 0 1 2 0 1 2 0 0 EITE?	The ove frame bl

Operation Check

1

erlap links.



3. Touch the point where you want to move the overlap display with a finger. The overlap display is moved.





4. The overlap display disappears when you double-click on the top left corner of the overlap display.



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The overlap display can be moved or cleared only when [System Button] is checked in the [Overlap] dialog.

Operation Check

2.2 Entering Numerical Data

1. Press the numerical data display part of "D100". The overlap display appears on the right side and the numerical data for "D100" becomes highlighted.





When the alarm setting is made for the entry target, [Max.] and [Min.] are displayed on the overlap display. When you enter the value out of this range, the ENTER key will not work.

2. Press [3] and [3] on the keypad. "33" is indicated for "Key-in."



- PLC 00000000 Numerical Data Entry D100 33 Dec D101 0 Dec D102 0 Dec D103 0 Dec ÷ 33 D105 +0 D110 0.0 D115 0000 D100 D117 0 Dec D118 0 Dec 0 D106 +0 D111 0.0 D116 0000 D119 0 Dec 0 D107 +0 D112 0.0 D117 0000 D108 +0 D113 0.0 D118 0000 0 0 +() 0.0 D119 0000
- 3. Press the ENTER (or CR) key. The overlap display disappears and "33" is displayed for "D100". At this time, you can check that the "33" is written to the address D100 in the PLC.

Other values can be written by following the same steps.

••

When entering a negative value such as "-200": Press the [2], [0], [0], [+/-] and [ENTER] (or CR) keys in order.

Questions and Answers

The following describes possible keypad problems on the multi-overlap display and measures.

- The cursor is displayed even though the overlap is not called.
 - The entry mode using the [Entry] dialog has been set on the screen editing window.
 The entry mode must be set up on the same library as the keypad (= on the overlap library). Clear the setting of the [Entry] dialog set for the screen.
- The overlap display does not disappear though the [ENTER] key on the overlap display is pressed.
 - The possible causes are:
 - 1) The numerical data display part and the overlap call switch are not placed on the same position.

The overlap call switch should be placed over the numerical data display part (entry target).

2) The entry target is placed on multiple switches which calls an overlap.

When the entry target is placed, not on one switch, but on the multiple switches, the overlap may not disappear when you press the [ENTER] key.

OK

No Good

Data 6	1234
Data 7	1234
Data 8	1234
Data 9	1234
Data 10	1234

Data 1	1234
Data 2	1234
Data 3	.1234
Data 4	:1234:
Data 5	1234

When the switch which is registered to this screen later is pressed, the overlap display does not disappear even when you press the [ENTER] key because two switches are placed over one numerical data display part.

3) The system memory address \$s76 has the value except for "0".

The AUTO OFF function of keypad (when you press the [ENTER] key, the overlap display disappears) is prohibited when the value except for "0" is specified in the system memory address \$s76.