

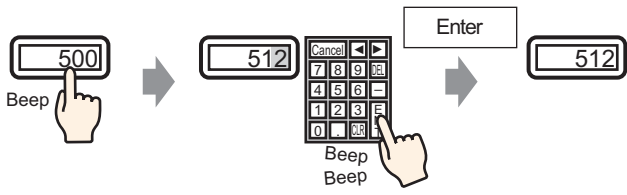
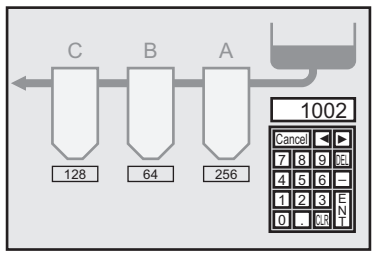
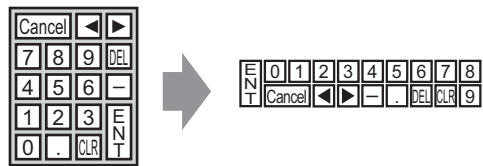
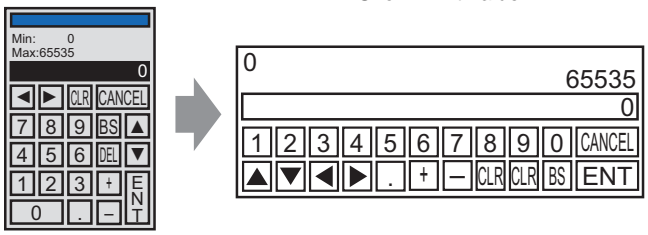
15 | Keypad Input

The Keypad Input chapter explains standard information about GP-Pro EX keypad inputs and basic instructions on how to set up keypads.

Please start by reading "15.1 Settings Menu" (page 15-2) and then turn to the corresponding page.

15.1	Settings Menu	15-2
15.2	Popup Keypad Display	15-3
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15.4	Customizing the Keypad Layout	15-10
15.5	Customizing the System Keypad of the Data Display	15-22
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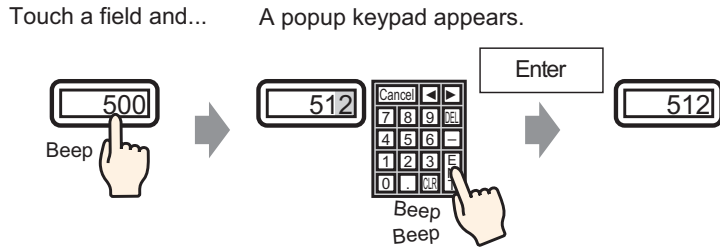
15.1 Settings Menu

Popup Keypad Display	
<p>Displays a keypad on the screen only when necessary (when inputting data).</p> <p>Touch a field and... A popup keypad appears.</p> 	<ul style="list-style-type: none"> ☞ Setup Procedure (page 15-4) ☞ Introduction (page 15-3)
Always Display Keypad on the Screen	
<p>Places a keypad directly on the screen. A permanent keypad will appear.</p> 	<ul style="list-style-type: none"> ☞ Setup Procedure (page 15-8) ☞ Introduction (page 15-7)
Customizing the Keypad Layout	
<p>Allows the user to rearrange the keypad buttons.</p> 	<ul style="list-style-type: none"> ☞ Setup Procedure (page 15-11) ☞ Introduction (page 15-10)
Customizing the System Keypad of the Data Display	
<p>Add an area to display the limit values of the Data Display and an input value to the System Keypad.</p> <p>System Keypad User Defined Keypad + Input Display + Show Limit Value</p> 	<ul style="list-style-type: none"> ☞ Setup Procedure (page 15-23) ☞ Introduction (page 15-22)

15.2 Popup Keypad Display

15.2.1 Introduction

Displays a keypad on the screen only when necessary (when inputting data).

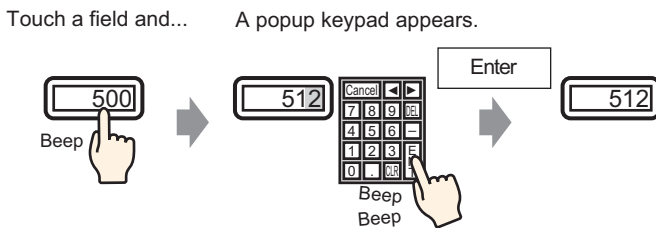



15.2.2 Setup Procedure

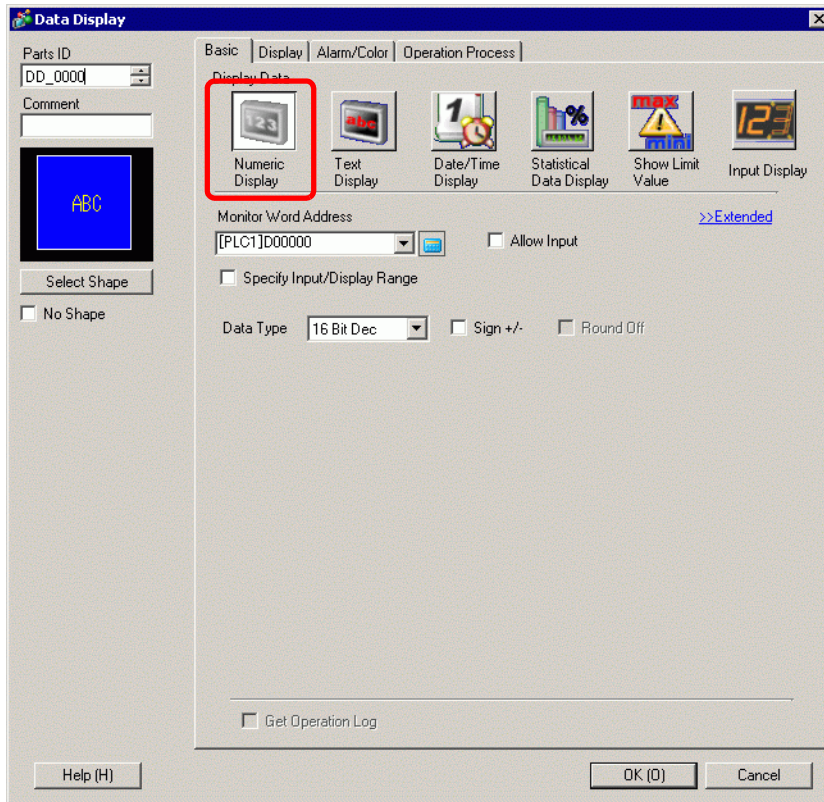
NOTE

- Please refer to the Settings Guide for details.
 ↳ "14.11 Data Display Settings Guide" (page 14-42)
- For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 ↳ "8.6.1 Editing Parts" (page 8-44)

Displays a keypad on the screen only when necessary (when inputting data).



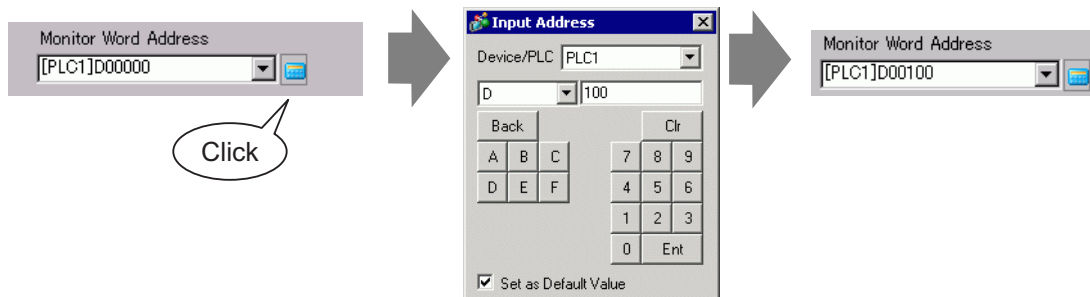
- 1 From the [Parts (P)] menu, point to [Data Display (D)] and select [Numeric Display (N)], or click the  icon, and place it on the screen.
- 2 Double-click the placed element. The Data Display dialog box appears.



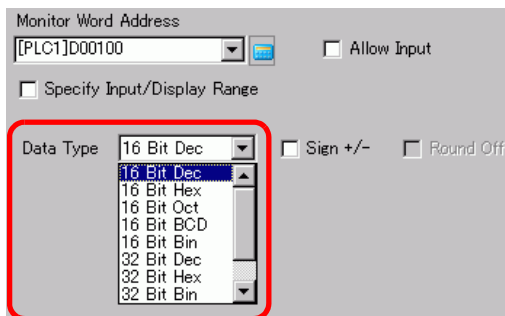
- 3 Click [Select Shape] and select the appropriate shape.
- 4 In [Monitor Word Address], set the address (for example, D100) which will store the inputted value.

Click the icon to display an address input keypad.

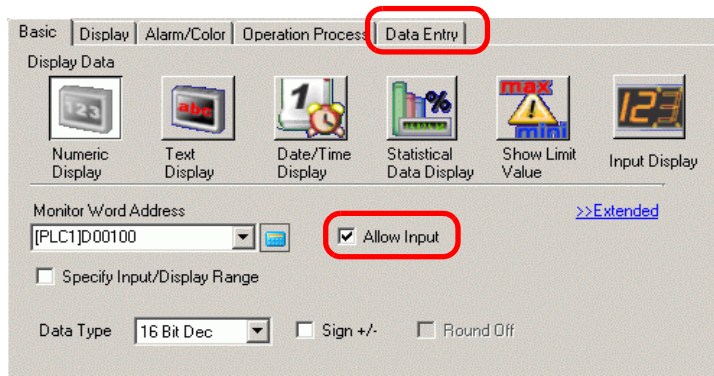
Select device "D", input "100" as the address, and press the Enter key.



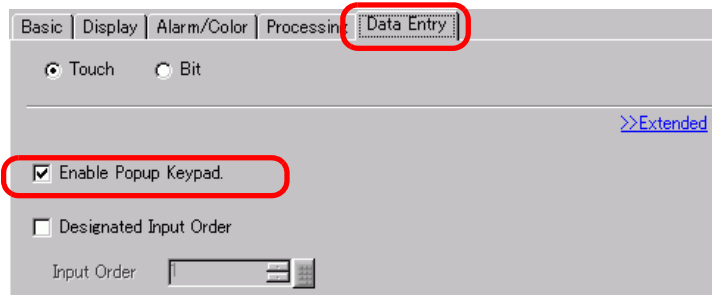
- 5 In the [Data Type] drop-down list, set the type of data to display (for example, "16 Bit Dec").



- 6 Select the [Allow Input] check box. Once you select the [Allow Input] check box, the [Data Entry] tab appears and you can enter numeric data.



- 7 Click the [Data Entry] tab and the following appears. Select the [Enable Popup Keypad] check box.

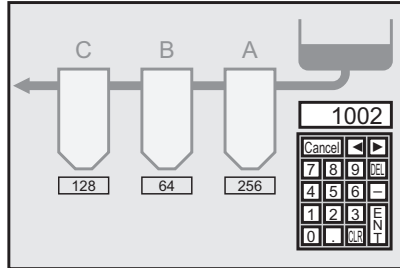


- 8 As needed, specify the Data Display's color and text on the [Alarm/Color] tab and [Display] tab, and click [OK].

15.3 Always Display Keypad on the Screen

15.3.1 Introduction

Places a keypad directly on the screen. A permanent keypad will appear.

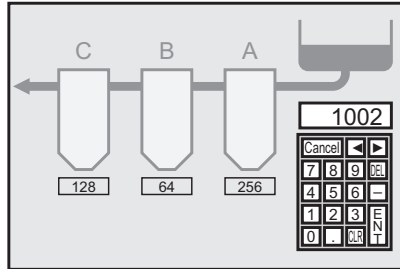


15.3.2 Setup Procedure

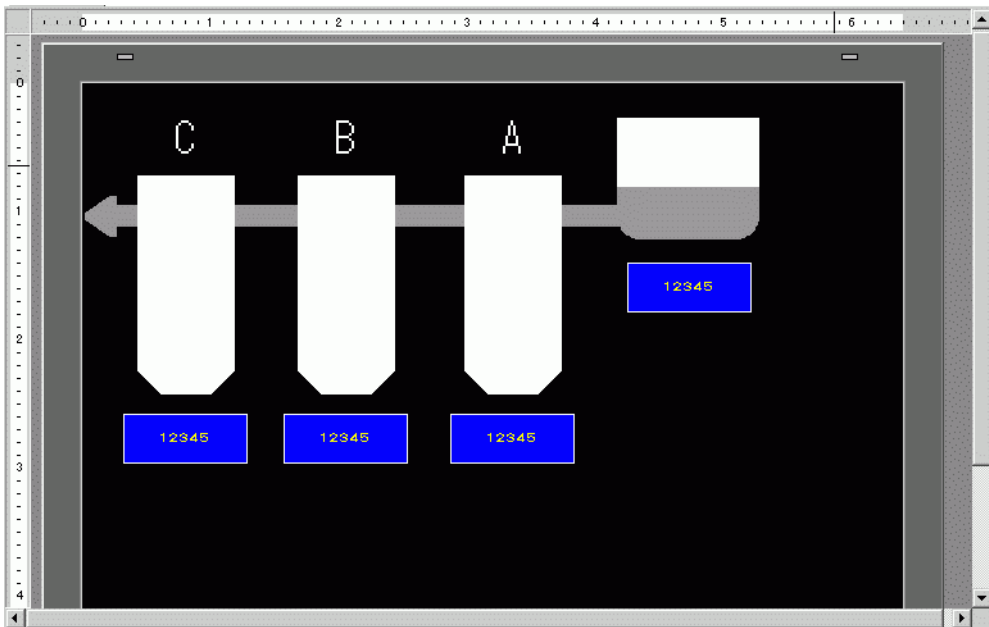
NOTE


- Please refer to the Settings Guide for details.
 ☞ "15.6.1 Keypad Settings Guide ■ User Keypad" (page 15-33)

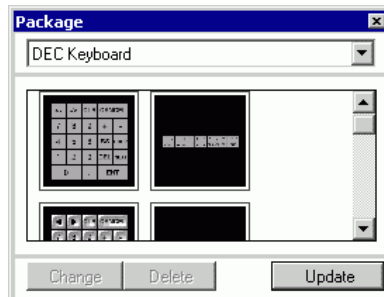
Places a keypad directly on the screen. A permanent keypad will appear.



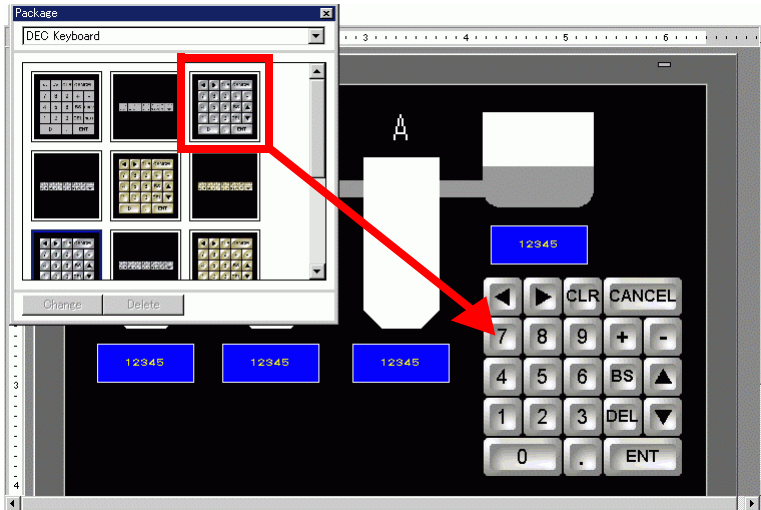
1 Open a drawing screen where you want to place a keypad.



2 From the [Part (P)] menu, select [Keypad (B)] or click  to display the [Package].



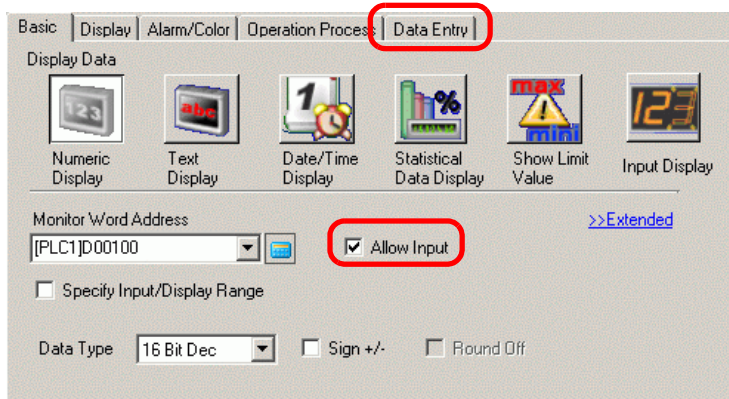
3 Select a keypad to use and place it on the drawing screen. (For example, DEC Keyboard)



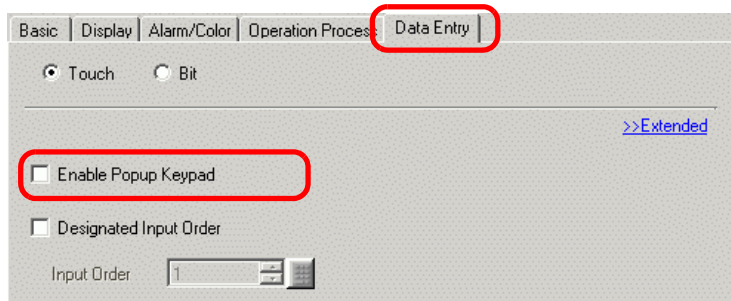
The steps to display a permanent keypad on the screen are complete.

4 Next, set up a Data Display part used to display data entered with the keypad. Double-click the Data Display to open the [Settings] dialog box

5 Select the [Allow Input] check box. The [Data Entry] tab becomes available.



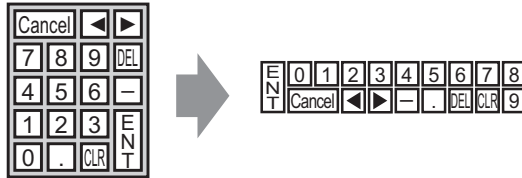
6 Click the [Data Entry] tab and clear the [Enable Popup Keypad] check box. Now the Data Display is set up to display data that has been entered using the screen keypad.



15.4 Customizing the Keypad Layout

15.4.1 Introduction

You can rearrange existing keypads to create your own keypad. You can place your new keypad on the screen or display it as a pop-up.



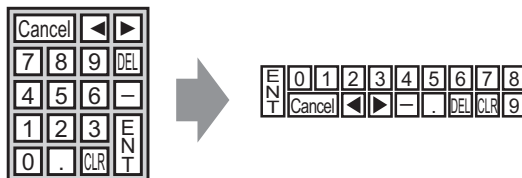
15.4.2 Setup Procedure


■ Displaying the Customized Keypad Permanently on the Screen

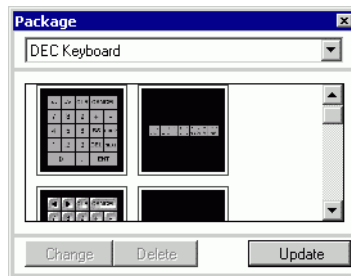
NOTE

- Please refer to the Settings Guide for details.
 ☞ "15.6.1 Keypad Settings Guide ■ User Keypad" (page 15-33)

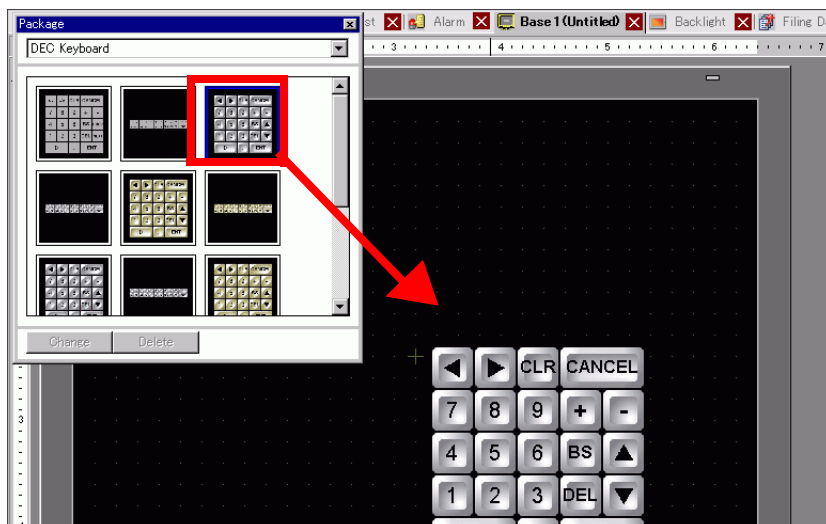
Display the customized keypad permanently on the screen.



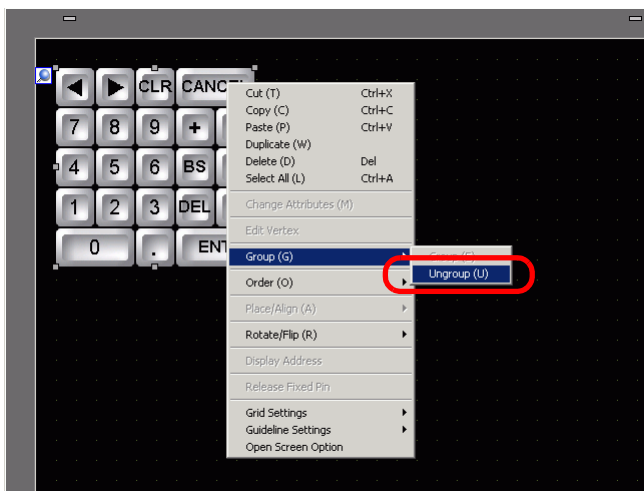
- 1 From the [Parts (P)] menu, select [Keypad (B)] or click  to display the following [Package].



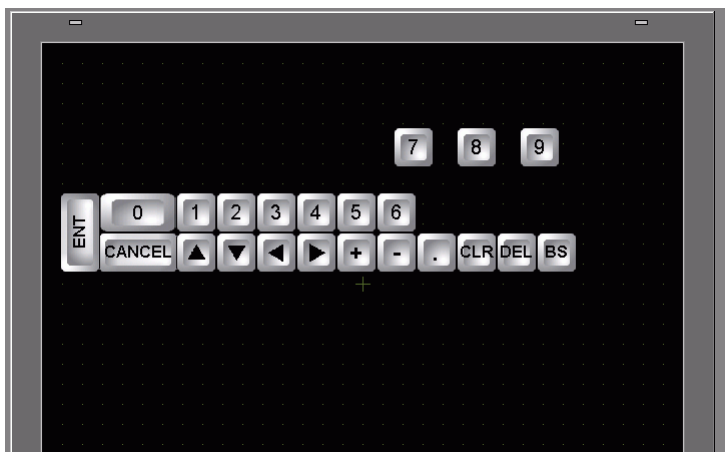
- 2 Select a keypad to customize and place it on the drawing screen. (For example, DEC Keyboard)



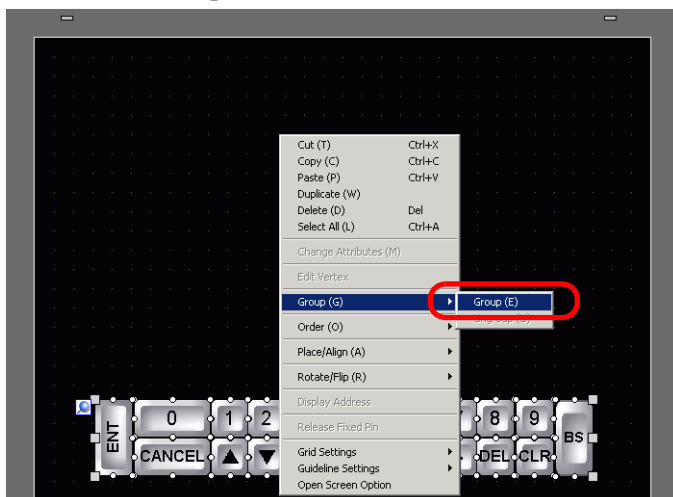
- 3 Select the placed keypad, right-click, and select [Ungroup (U)] from [Group (G)]. Now you can rearrange the keys.




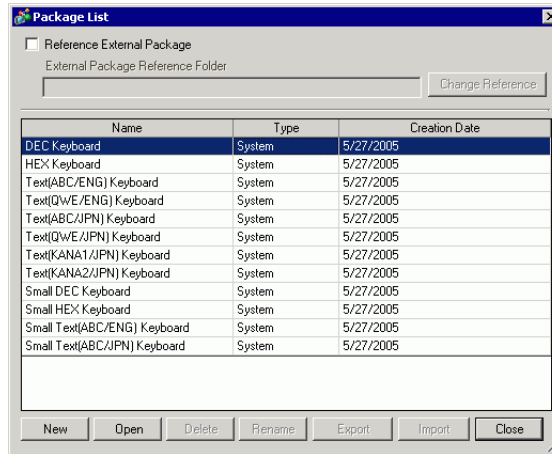
- 4 Rearrange the ungrouped keys.



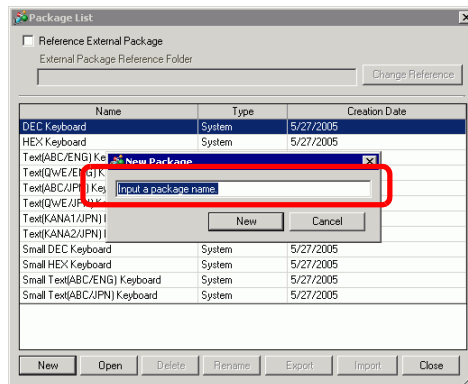
- 5 Select all the customized keypads, right-click, and select [Group (E)] from [Group (G)]. The keypad customization is complete.



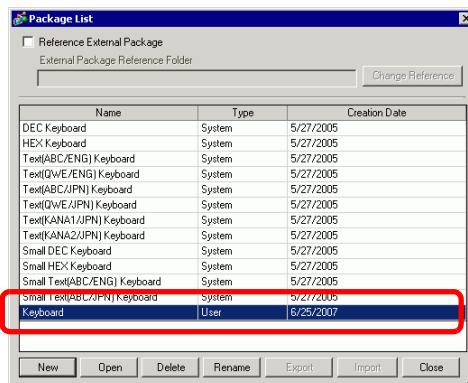
6 Register the customized keypad in [Package]. Then you can refer to the Package when you use the customized keypad on another drawing screen. Select the [View (V)] menu - [Package (P)] command or click , and the following [Package List] dialog box appears.



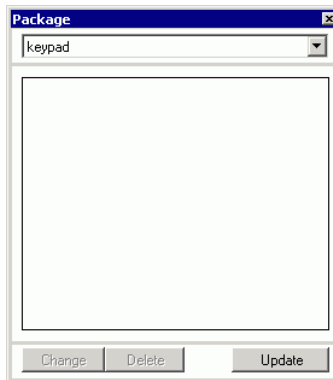
7 Click [New]. The [New Package] dialog box appears. Set a package name. (For example, Keypad)



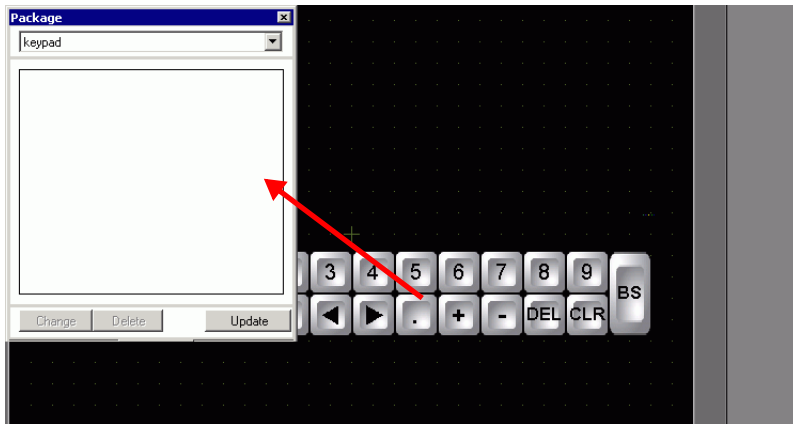
8 Click [New] on the [New Package] dialog box to return to the [Package List] dialog box, where the new package displays.



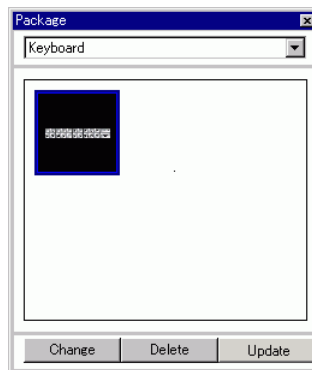
- 9 On the [Package List] dialog box with a new package name selected, click [Open]. The following dialog box appears.



- 10 Drag the customized keypad to the [Package] dialog box.



- 11 The customized keypad has been registered in the [Package].



NOTE

- A combined 200 drawings, parts, and keypads can be registered in one [Package].
 - To delete a registered keypad, in the [Common Settings] window, below the [Keypad Registration] node, right-click the keypad and select [Delete].
 - After the keypad is registered in the Package window's [Favorites] list, you can drag the edited keypad to place it on the screen.
-

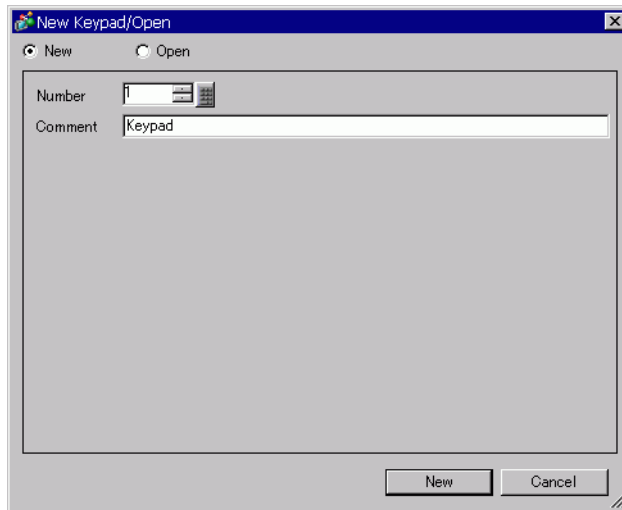
■ Popping Up the Customized Keypad

NOTE

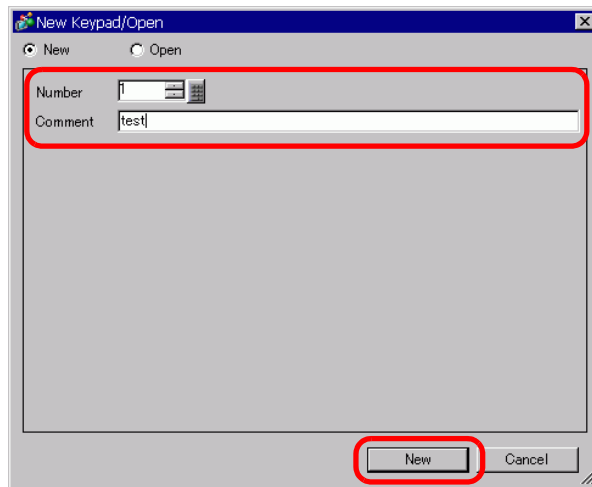
- Please refer to the Settings Guide for details.
 - ☞ "15.6.2 Common (Keypad Registration) Settings Guide" (page 15-34)
 - ☞ "15.6.1 Keypad Settings Guide ■ User Keypad" (page 15-33)
 - ☞ "14.11 Data Display Settings Guide" (page 14-42)
- For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 - ☞ "8.6.1 Editing Parts" (page 8-44)



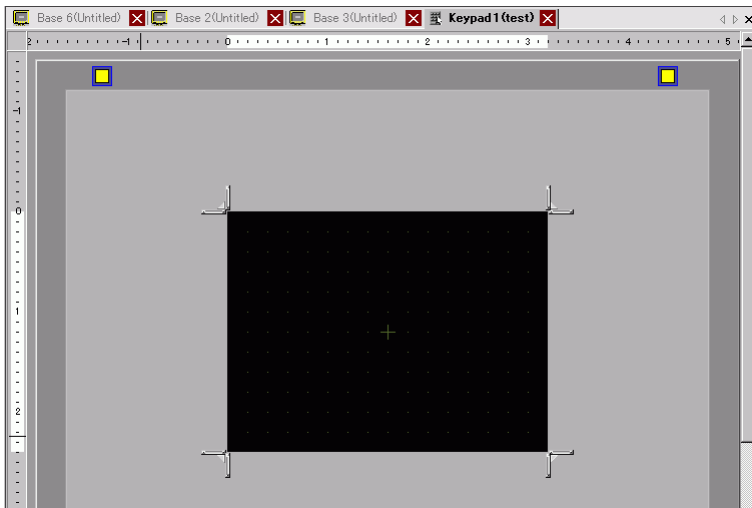
1 From the [Common Settings (R)] menu, select [Keypad Registration (K)]. The [New Keypad/Open] dialog box appears.




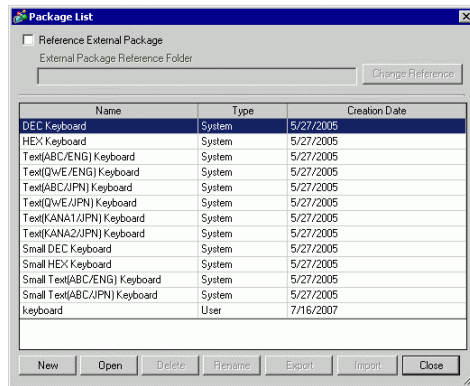
- 2 Set the [Number] and [Comment] and then click [New]. (For example, [Number] 1, [Comment] test)



- 3 The screen to create the keypad [Clear Area] appears.



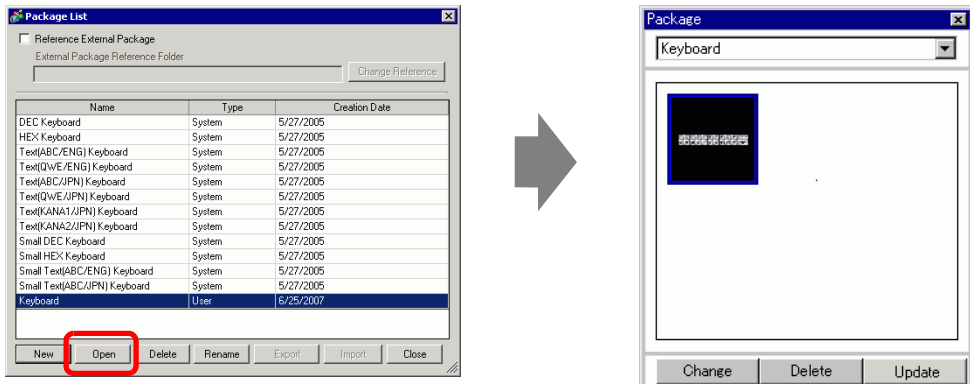
4 From the [View (V)] menu, select [Package (P)] or click  to display the [Package List] dialog box.



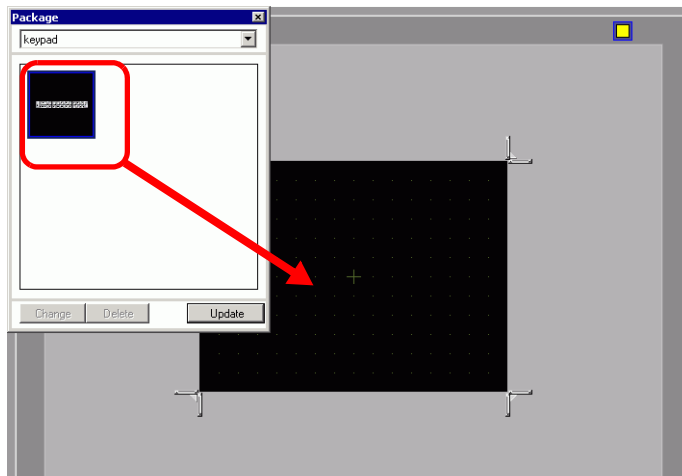
NOTE


- When [Keypad (B)] is selected from the [Parts (P)] menu, the [Package] dialog box displays, from which it can also be selected.

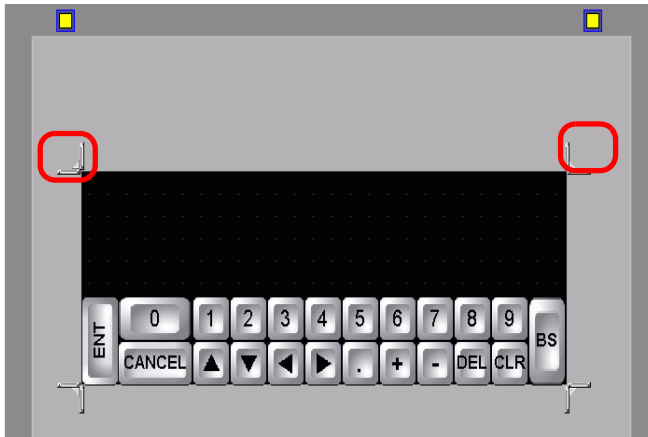
5 Select the package name (for example, Keypad) that is registered with the keypad you want to use, click [Open], and the [Package] dialog box appears.




6 Select a keypad to use and place it on the [Clear Area].



- 7 Create the keypad [Clear Area]. Drag the [Resize Boundary]  in the four corners of the [Clear Area] setting screen to change the size. The [Resize Boundary] button you drag with the mouse cursor determines the direction in which the clear area size changes.




NOTE

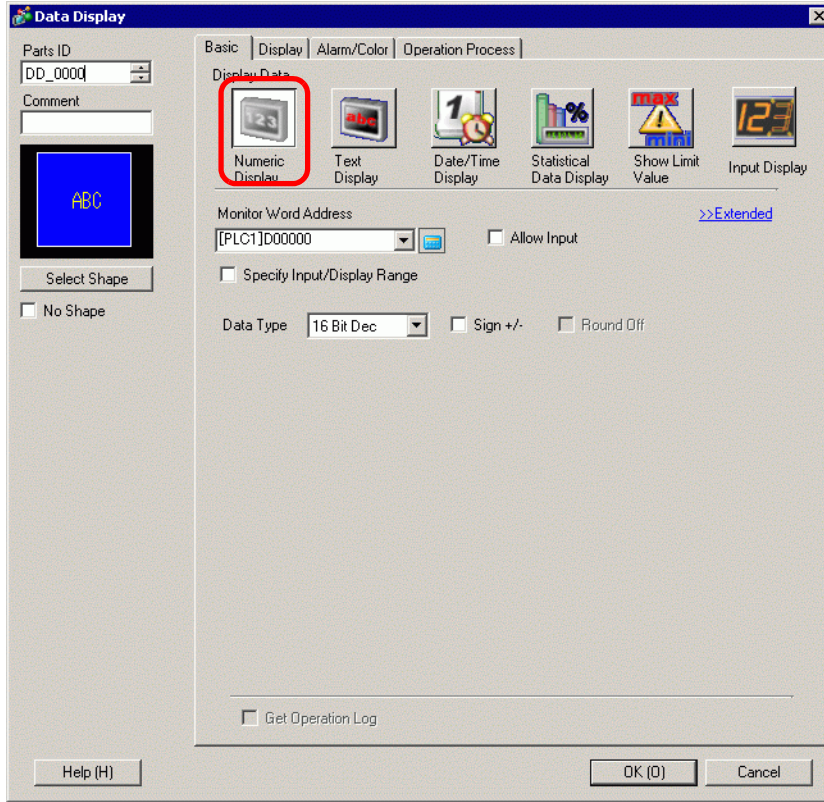
- [Clear Area] is the area that overwrites and hides the previously displayed keypad.
-  " ■ Clear Area" (page 15-37)

- 8 Click the [Base 1] tab to move to the base screen.



- 9 Configure settings to use the custom keypad with a Data Display. From the [Parts (P)] menu, point to [Data Display (D)] and select [Numeric Display (N)], or click the  icon, and place it on the screen.

10 Double-click the placed element. The Data Display dialog box appears.

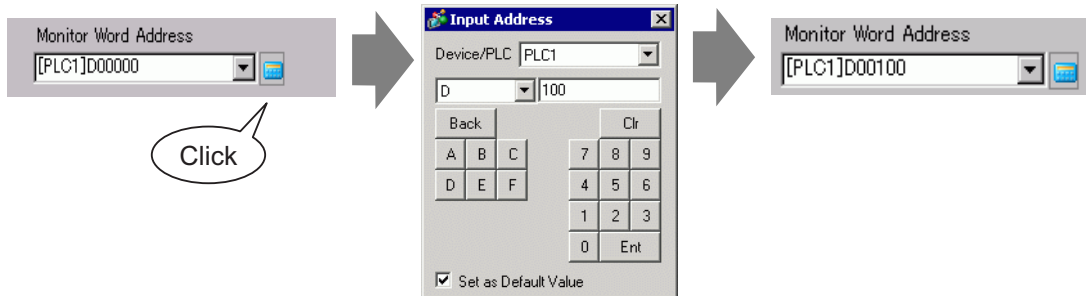


11 Click [Select Shape] and select the appropriate shape.

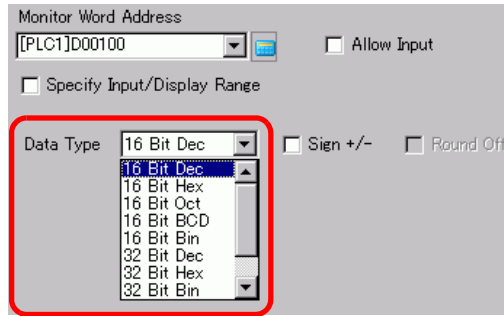
12 In [Monitor Word Address], set the address (D100) in which the inputted value will be stored.

Click the icon to display an address keypad.

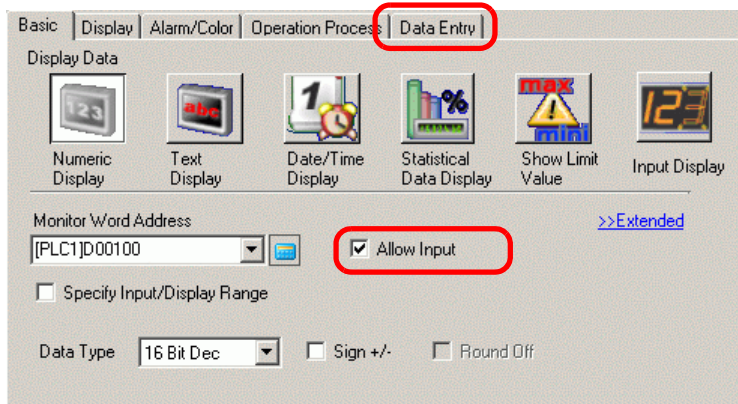
Select device "D", input "100" as the address, and press the Enter key.



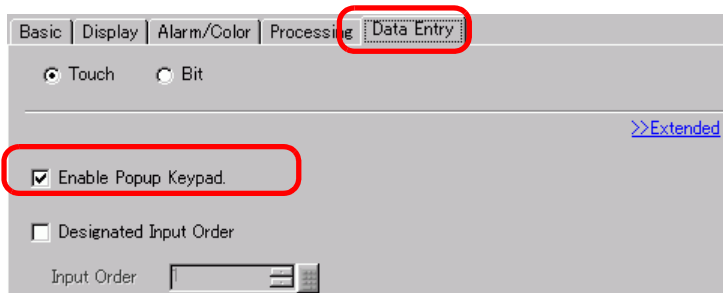
13 In the [Data Type] drop-down list, set the type of data to display (for example, "16 Bit Dec").



14 Select the [Allow Input] check box. Once you select the [Allow Input] check box, the [Data Entry] tab appears and you can enter numeric data.

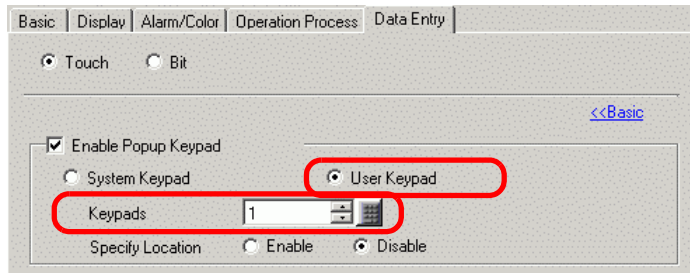


15 Click the [Data Entry] tab and the following appears. Select the [Enable Popup Keypad] check box.



16 Click [Extended].

- 17 In the [Extended] screen, select the [User Keypad] check box and set the [Keypad] screen number (for example, 1) with the keypad setting to the [Keypads].

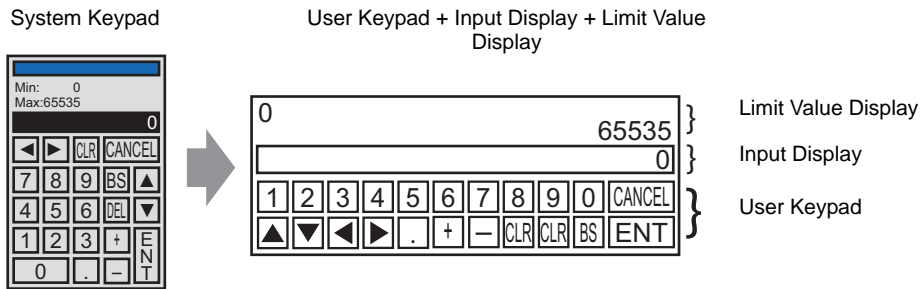


- 18 As needed, specify the Data Display's color and text on the [Alarm/Color] tab and [Display] tab, and click [OK].

15.5 Customizing the System Keypad of the Data Display

15.5.1 Introduction

Adds Limit Value display and Input display of the Data Display to the user keypad. You can create your own keypad having the same features as the system keypad.



NOTE

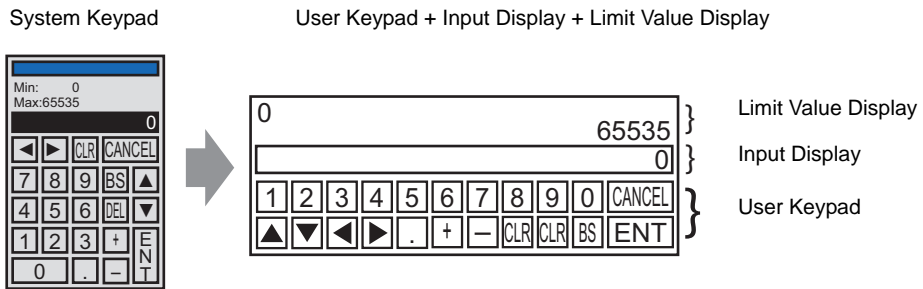
- The keypad with a Limit Value Display and Input Display has been registered in the package. You can select it from the package and place it.

15.5.2 Setup Procedure

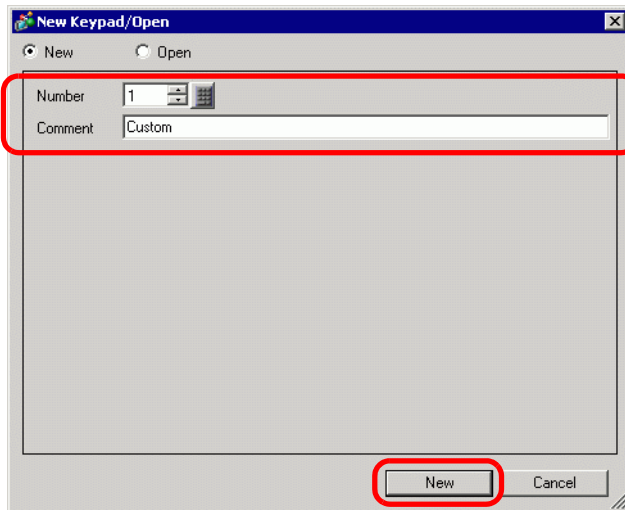
NOTE

- Please refer to the Settings Guide for details.
 - ☞ "15.6.2 Common (Keypad Registration) Settings Guide" (page 15-34)
 - ☞ "15.6.1 Keypad Settings Guide ■ User Keypad" (page 15-33)
 - ☞ "14.11 Data Display Settings Guide" (page 14-42)
- For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 - ☞ "8.6.1 Editing Parts" (page 8-44)

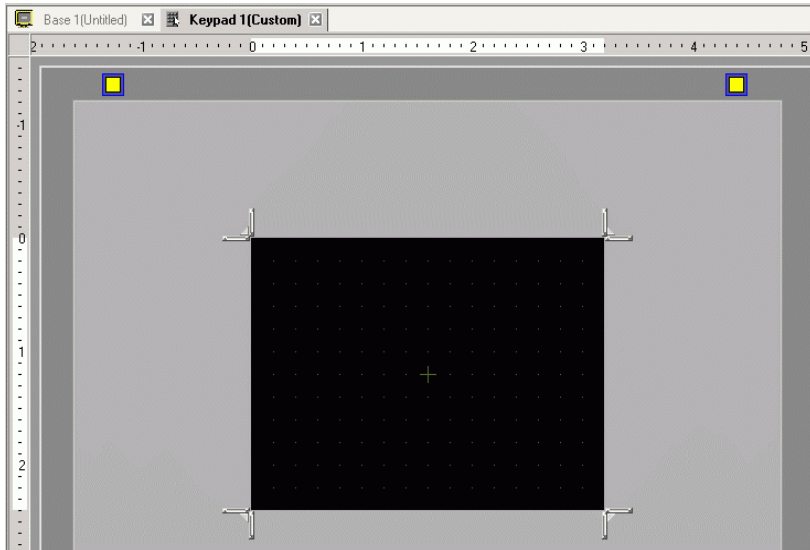
Your own keypad is created by adding, to the user keypad, areas where the limit value and input value on the Data Display can be displayed, and is displayed as a pop-up.




- 1 From the [Common Settings (R)] menu, select [Keypad Registration (K)]. The [New Keypad/Open] dialog box appears.
- 2 Set the [Number] and [Comment] and then click [New].
(For example, [Number] 1, [Comment] Custom)



3 The screen to create the keypad [Clear Area] appears.

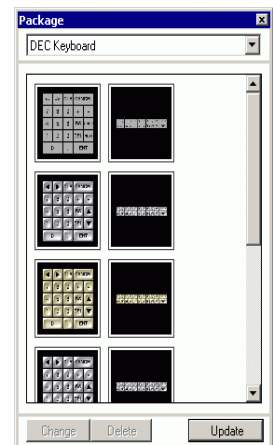
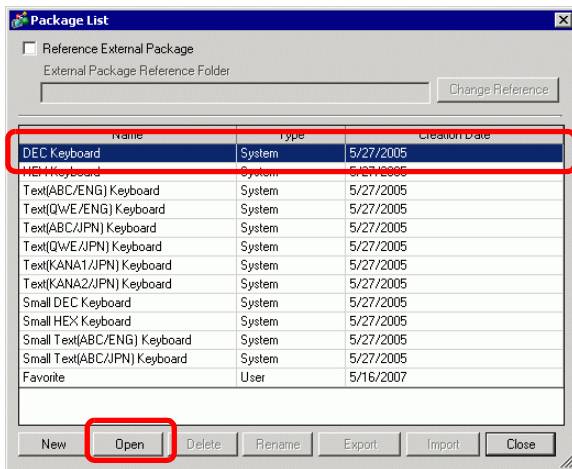


4 From the [View (V)] menu, select [Package (P)], or click  to display the [Package List] dialog box.

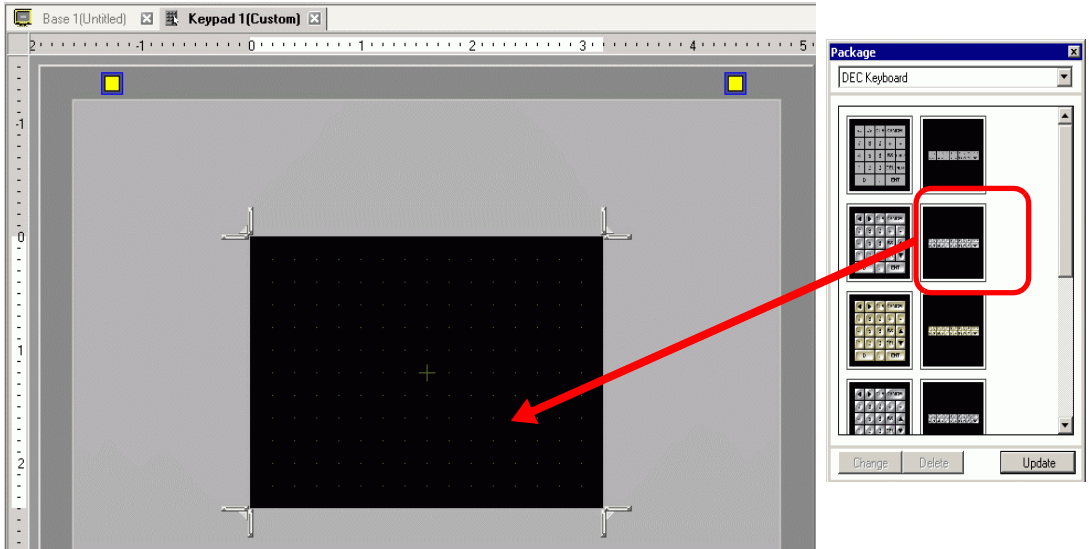
NOTE


- When [Keypad (B)] is selected from the [Parts (P)] menu, the [Package] dialog box displays, from which it can also be selected.

5 Select the package name (for example, DEC Keypad) that is registered with the keypad you want to use, click [Open], and the [Package] dialog box appears.




6 Select a keypad to use and place it on the [Clear Area].



7 Create the keypad [Clear Area]. Drag the [Resize Boundary]  in the four corners of the [Clear Area] setting screen to change the size. The [Resize Boundary] button you drag with the mouse cursor determines the direction in which the clear area size changes.



NOTE

- [Clear Area] is the area that overwrites and hides the previously displayed keypad.
 " ■ Clear Area" (page 15-37)

8 Customize the keypad as needed, such as modifying the key layout and size.

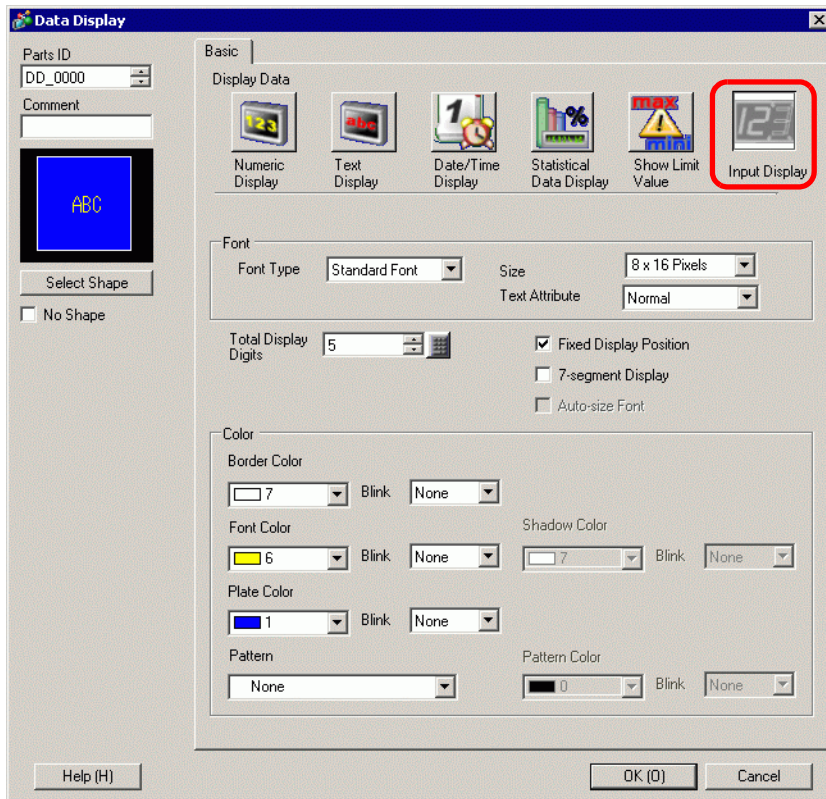
9 Place a part for Input display on the customized keypad. From the [Parts (P)] menu, point to [Data Display (D)] and select [Input Display (I)] to place it on the screen.



NOTE

- You can place only one Input display part on a screen. Error messages will be displayed when you attempt to place the second part.

10 Double-click the placed Input display part to open the setting dialog box.



11 If necessary, set the color of the Input display part and text to be displayed, and click [OK].

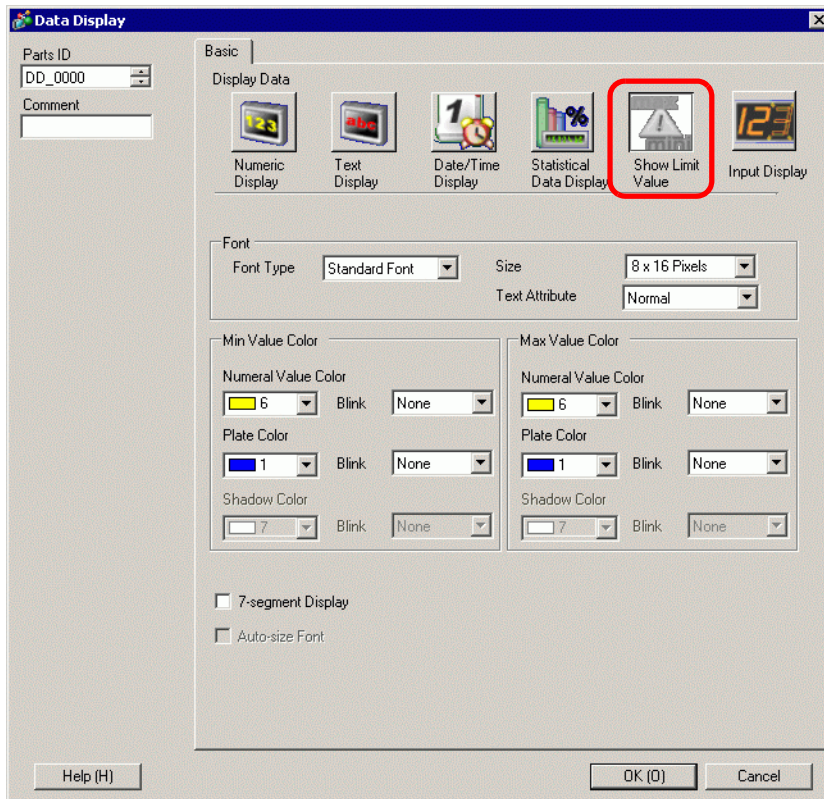
12 Place a part for Limit Value display on the customized keypad. From the [Parts (P)] menu, point to [Data Display (D)] and select [Show Limit Value (W)] to place it on the screen.



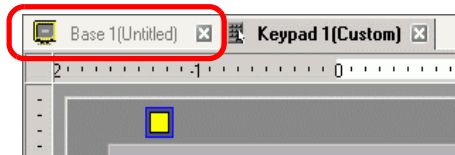
NOTE


- You can place only one Limit Value display part on a screen. Error messages will be displayed when you attempt to place the second part.

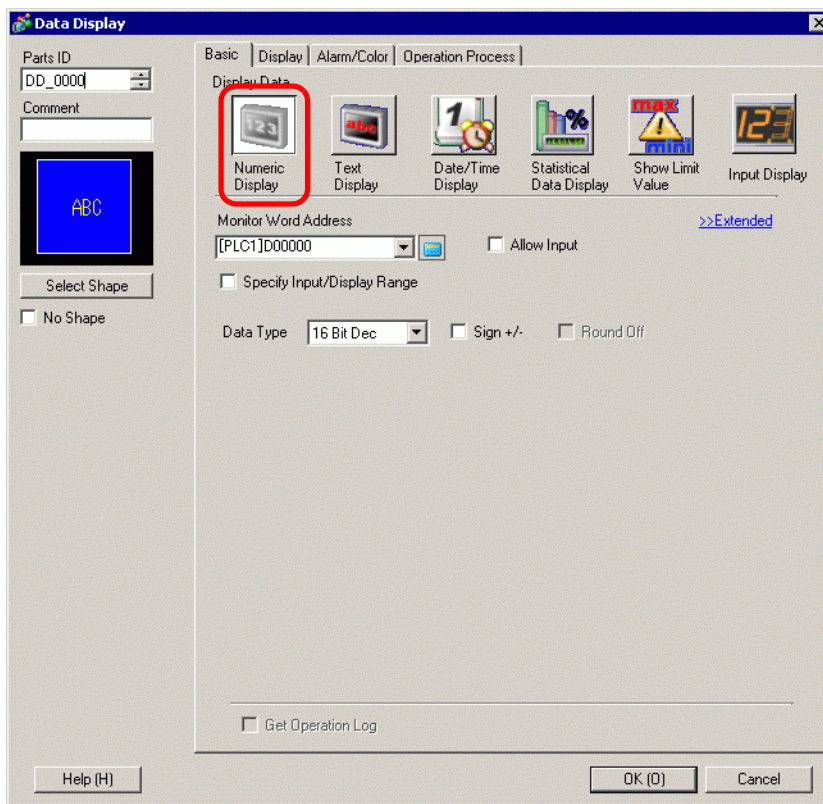
13 Double-click the placed Limit Value display part to open the setting dialog box.



- As needed, set the color of the Limit Value display part and text to be displayed, and click [OK].
- Click the [Base 1] tab to move to the base screen.



- Configure settings to use the custom keypad with a Data Display. From the [Parts (P)] menu, point to [Data Display (D)] and select [Numeric Display (N)], or click the  icon, and place it on the screen.
- Double-click the placed element. The Data Display dialog box appears.

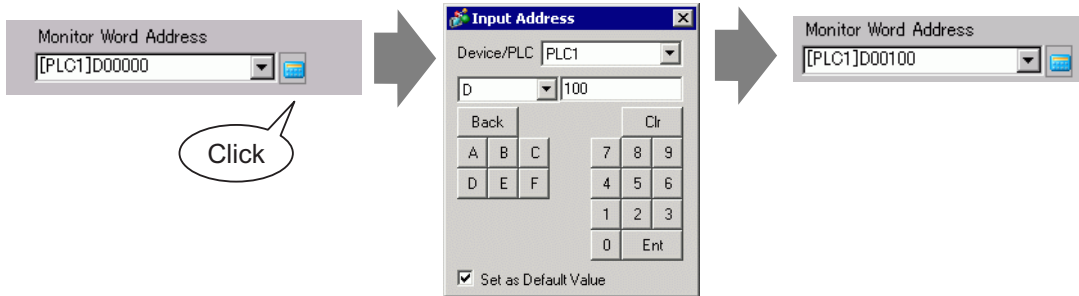


- Click [Select Shape] and select the appropriate shape.

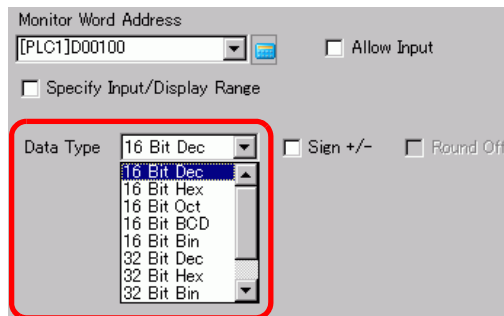
19 In [Monitor Word Address], set the address (D100) in which the inputted value will be stored.

Click the icon to display an address input keypad.

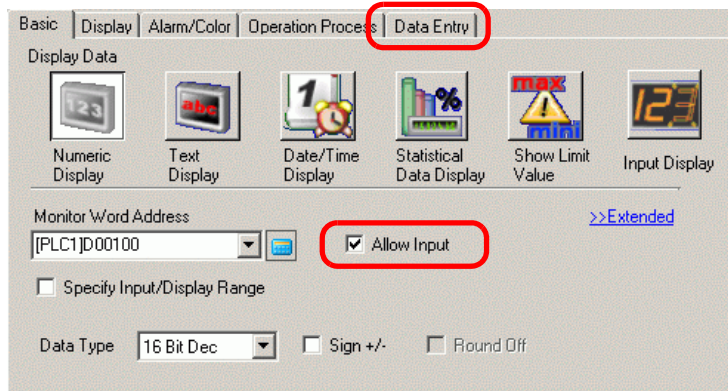
Select device "D", input "100" as the address, and press the Enter key.



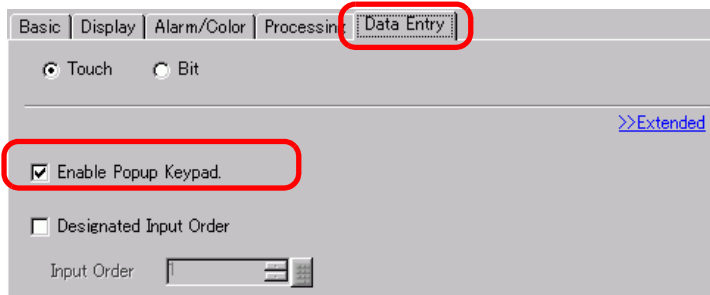
20 In the [Data Type] drop-down list, set the type of data to display (for example, "16 Bit Dec").



21 Select the [Allow Input] check box. Once you select the [Allow Input] check box, the [Data Entry] tab appears and you can enter numeric data.

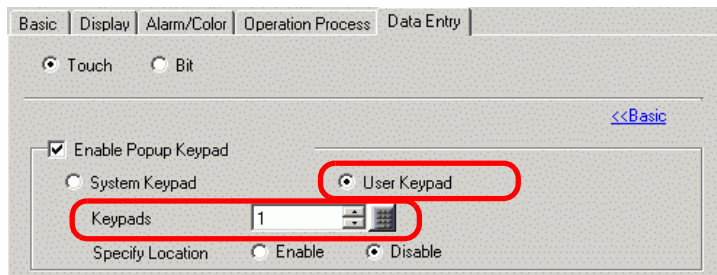


- 22 Click the [Data Entry] tab and the following appears. Select the [Enable Popup Keypad] check box.



- 23 Click [Extended].

- 24 In the [Extended] screen, select the [User Keypad] check box and set the [Keypad] screen number (for example, 1) with the keypad setting to the [Keypads].




- 25 As needed, specify the Data Display's color and text on the [Alarm/Color] tab and [Display] tab, and click [OK].

15.6 Settings Guide











15.6.1 Keypad Settings Guide

NOTE









- When Visible/Invisible is changed due to Visibility Animation, the keypad operation may be affected. For more details on Visibility Animation, refer to the following:
 "20.3 Showing and Hiding Objects" (page 20-8)

■ System Keypad

If you set up the Data Display to allow input, the appropriate numeric or text keypad is automatically selected and displayed in a pop-up window.

[Data Type]	Dec	Hex	Text
Keypad Specifications			 NOTE • The displayed keypad depends on the GP model size.
 - 	Numeric key (0 to F for Hex) Inputs the displayed numeric values.		
 -  Other Symbols	_____	_____	Text key Inputs the displayed characters and symbols.
	Delete key Erases the numeric value, character, or symbol in the cursor position.		
	Back Space key Erases the numeric value or symbol to the left of the cursor position.	_____	Back Space key Erases the numeric value or symbol to the left of the cursor position.
	Clear key Clears the setting value that displays. If you touch the [CLR] key, "0" will display in the area. (For text, it will disappear.) If you touch the [ENT] key in this state, the data "0" will be written to the device/PLC data storage address. (For text, the space code will be written).		

Continued

[Data Type]	Dec	Hex	Text
	Enter key Determines the setting value that displays and writes it to the device/PLC data storage address.		
	Arrow Keys Moves the cursor to the right and left on a Data Display.		
	Area Migration key When using multiple Data Displays, the system can move to the next or previous Data Display without entering data. This allows you to skip to the Data Display you want to work with. * If the [Data Display] dialog box's [Data Entry] option is [Touch], you have to define the [Designated Input Order]. When the option is [Bit], the [Allow Input Bit Address] needs to be the same address throughout all the displays.		
	Plus/Minus key In the Data Display, this setting is available only when the [Data Type] is [Dec] and the [Sign +/-] check box is selected.	_____	Minus key Inputs the "-" as a symbol.
	Decimal Point key In the Data Display, when the [Data Type] is [Dec] or [BCD] and you are entering fractional values, this key becomes an input-switching key that toggles the cursor between the integral and fractional portions.	_____	Decimal Point key Inputs the "." as a symbol.
	Cancel key Cancels the input. When you use the Data Display pop-up keypad, the pop-up keypad closes without entering the value.		_____
	_____	_____	Escape key Cancels the input. When you use the Data Display pop-up keypad, the pop-up keypad closes without entering the value.
	_____		Space key Inputs a space.

■ User Keypad

When enabling input on a Data Display, the keypad saved and selected from a [Package], or the user-created keypad, displays in a pop-up window. You can also drop these keypads on the screen.

☞ "8.13.2 Package List Setup Guide" (page 8-95)

The following keypads are registered in the [Package].

Name	Description
DEC Keyboard	Displays seven types each of vertical and horizontal ten-key pads.
HEX Keyboard	Displays seven types each of vertical and horizontal hexadecimal keypads.
Text (ABC/ENG) Keyboard	Displays seven types of full, horizontal keypads. (Keys are arranged in alphabetical order.)
Text (QWE/ENG) Keyboard	Displays seven types of full, horizontal keypads. (Keys are placed in the same order as a normal QWERTY keyboard.)
Text (ABC/JPN) Keyboard	Displays seven types of horizontal full keypads for the Japanese FEP feature. (Keys are arranged in alphabetical order.)
Text (QWE/JPN) Keyboard	Displays seven types of horizontal full keypads for the Japanese FEP feature. (Keys are placed in the same order as a normal QWERTY keyboard.)
Text (KANJI1/JPN) Keyboard	Displays seven types of horizontal full keypads for the Japanese FEP feature (Type in Hiragana).
Text (KANJI2/JPN) Keyboard	Displays seven types of horizontal full keypads for the Japanese FEP feature (Type in Hiragana).
Small DEC Keyboard	Displays two types each of small vertical and small horizontal ten-key pads.
Small HEX Keyboard	Displays two types each of small vertical and small horizontal hexadecimal keypads.
Small Text (ABC/ENG) Keyboard	Displays six types of small, full keypads.
Small Text (ABC/JPN) Keyboard	Displays six types of small, Japanese full keypads.

NOTE

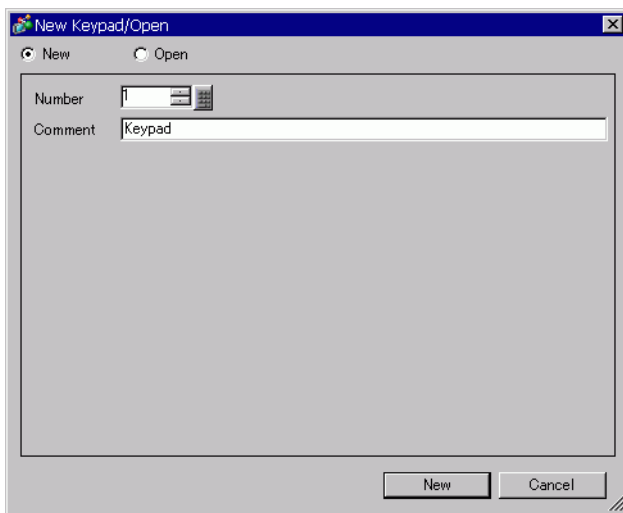
- When typing lower-case characters with the CAPS key on a text keypad while changing screens or returning to the original screen, the CAPS key remains enabled (lower-case input) for the next time you input text.
- In order to add a Limit Value display and Input Display to the user keypad, use Data Display.

☞ "15.5 Customizing the System Keypad of the Data Display" (page 15-22)

15.6.2 Common (Keypad Registration) Settings Guide

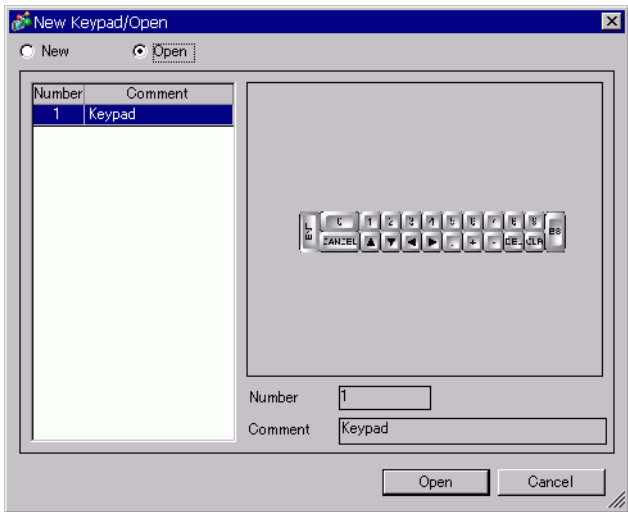
■ Creating Keypads

Open the screen to register a keypad.



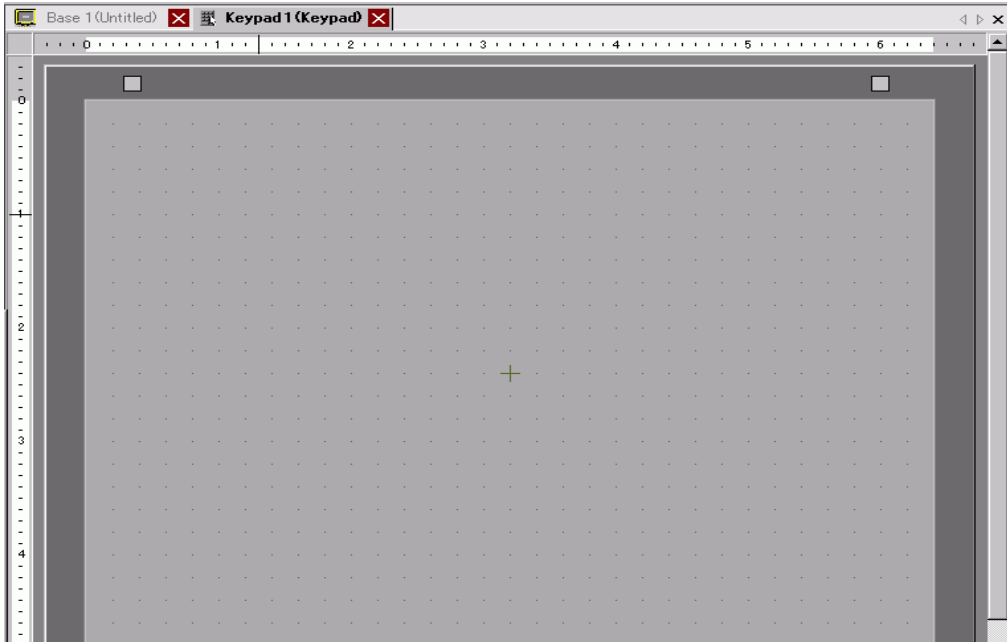
Setting	Description
New	Create a new [Keypad Registration] screen.
Open	Opens a previously created keypad screen.
Number	Set a number for the [Keypad Registration] screen from 1 to 8999.
Comment	Set a comment for the [Keypad Registration] screen within 30 characters.

■ Opening Keypads



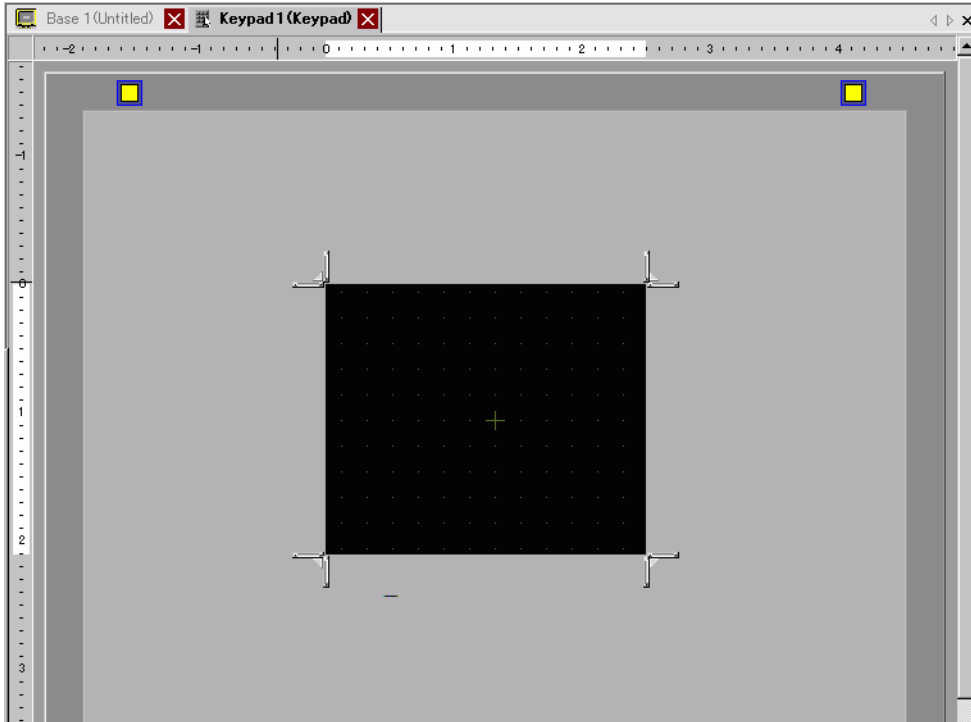
Setting	Description
New	Create a new [Keypad Registration] screen.
Open	Opens a previously created [Keypad Registration] screen.
Keypad List	Displays a list of the [Keypad Registration] screens in a project file.
Number	Displays the number of each [Keypad Registration] screen.
Comment	Displays the comment of each [Keypad Registration] screen.
Keypad Preview	Previews the keypad on the [Keypad Registration] screen selected from the [Keypad List].
Number	Displays the number of the [Keypad Registration] screen selected from the [Keypad List].
Comment	Displays the comment of the [Keypad Registration] screen selected from the [Keypad List].


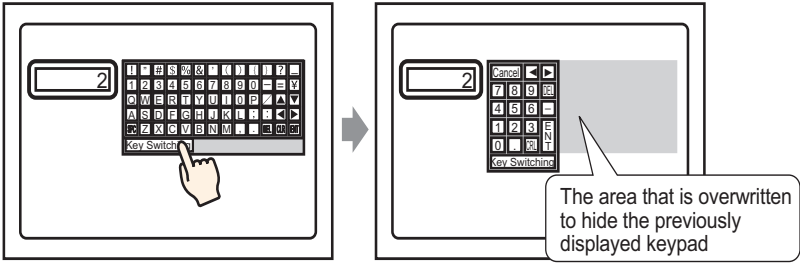

■ Keyboard Registration



Setting	Description
Set Clear Area Button <input type="checkbox"/>	This button is used to set the [Clear Area].
Editing Area	This is an area in which to edit a keypad.

■ Clear Area



Setting	Description
Release Clear Area Button 	Releases the [Clear Area] display and returns to a [Keypad] screen.
Clear Area	<p>A clear area is an area that is overwritten to hide the previously displayed keypad when a large keypad is switched to a small one.</p> 
Resize Boundary 	Changes the size of a [Clear Area]. The [Resize Boundary] button you drag with the mouse cursor determines the direction in which the clear area size can be changed.

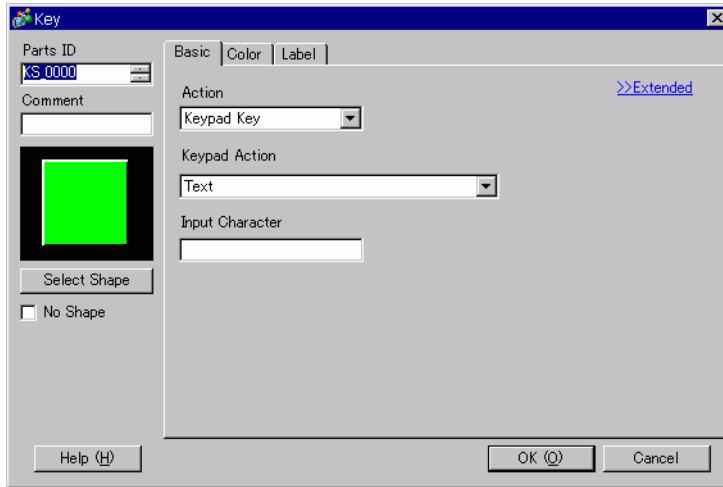
15.6.3 Key Part Settings Guide

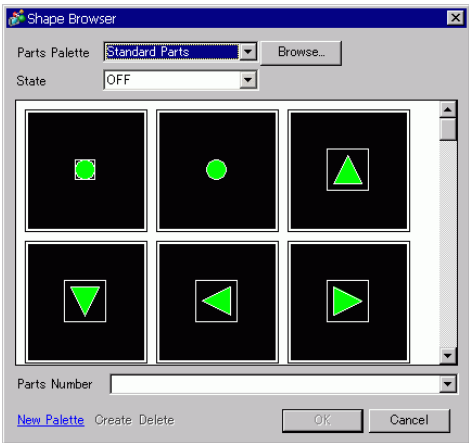
NOTE

- When Visible/Invisible is changed due to Visibility Animation, the keypad operation may be affected. For more details on Visibility Animation, refer to the following:

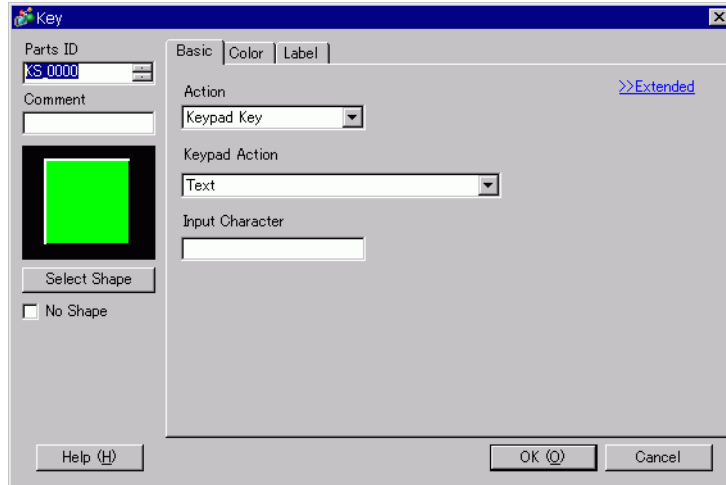
☞ "20.3 Showing and Hiding Objects" (page 20-8)

Set the key for each keypad.




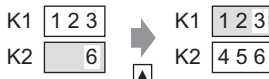
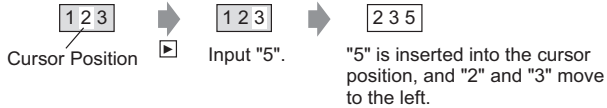
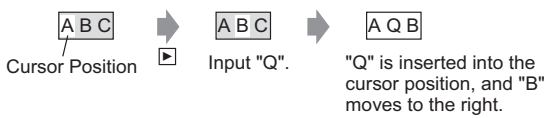
Setting	Description
Part ID	Parts are automatically assigned an ID number. Key Part IDKS_**** (4 digits) The letter portion is fixed. The number portion can be modified from 0000 to 9999.
Comment	The comment for each Part can be up to 20 characters.
Part Shape	Displays the shape and status of the Part selected in [Select Shape].
Select Shape	Open the Select Shape dialog box to choose the shape. 
No Shape	Select whether or not the Part will be transparent with no shape.

■ Basic Settings/Basic

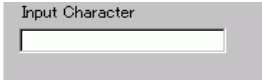
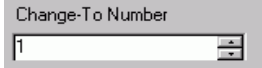




Setting	Description
Action	<p>Select the Key Part type.</p> <ul style="list-style-type: none"> • Keypad Key Set a keypad input key. • FEP Feature Key You can use the Kana/Kanji conversion method when you enter Japanese on the GP. This feature is called Japanese Front End Process (FEP). Set up the input keys for the Japanese FEP keypad. <div data-bbox="632 996 1048 1219" style="border: 1px solid gray; padding: 5px; margin: 10px auto; width: fit-content;"> <p>Action <input type="text" value="FEP Feature Key"/></p> <p>FEP Feature Action <input type="text" value="FEP Boot/Cancel (Type in Roman Letters)"/></p> <p>FEP Display Position <input type="text" value="Top"/></p> </div> <p>NOTE</p> <ul style="list-style-type: none"> • This feature is available for Text Displays set up with the [Display] tab's [Display Language] defined as [Japanese].

Continued

Setting	Description
Keypad Action	<p>Select the action of a keypad key from [Text], [ENT], [BS], [CLR], [DEL], [Up Arrow], [Down Arrow], [Left Arrow], [Right Arrow], [Change Keypad], and [Cancel (For Popup Window)].</p> 
Action	<ul style="list-style-type: none"> • ENT Determines the data being inputted. • BS Erases the character to the left of the cursor position. • CLR Clears all the data being inputted. • DEL Erases the character in the cursor position. • , When using multiple Data Displays, the system can move to the next or previous Data Display without entering data. This allows you to skip to the Data Display you want to work with. <p>* If the [Data Display] dialog box's [Data Entry] option is [Touch], you have to define the [Designated Input Order]. When the option is [Bit], the [Allow Input Bit Address] needs to be the same address among the displays.</p> <p>For example, [Up Arrow] Action</p>  <p>NOTE</p> <ul style="list-style-type: none"> • When you enter characters to be converted with the FEP feature, this key moves the cursor to the top or last of the characters. When pages of convert-to characters display, it switches the display to the previous or the next page. • [Right Arrow] [Left Arrow] Moves the cursor to the right or left during input. For example, for [Right Arrow]'s action <p>(Numeric Input)</p>  <p>(Character Input)</p>  <ul style="list-style-type: none"> • Cancel (For Popup Window) Closes a pop-up keyboard and erases all the inputted characters.

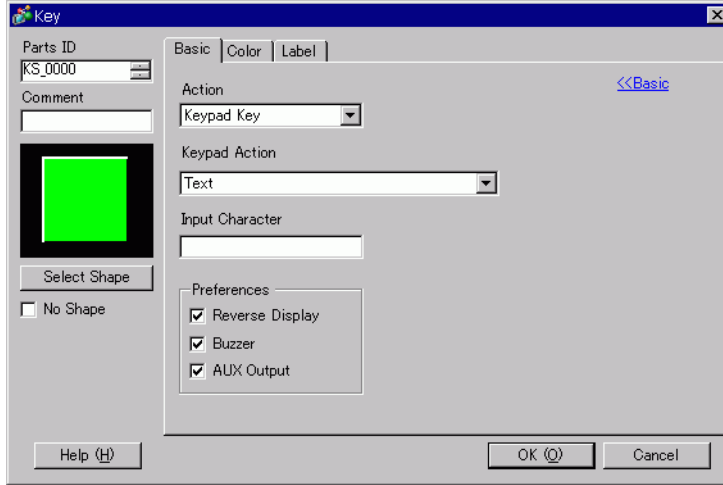
Continued

Setting		Description
Keypad Action	Text	Keypad Action
	Text	Set a key to input text. Set up one single-byte or double-byte character 
	Change Keypad	Set a key to change keypad screens. NOTE • If a keypad is drawn on the base screen, the change keypad operation is unavailable.
Action	Change-To Number	Set the change-to keypad screen number from 1 to 8999. 
	FEP Feature Action	Select the FEP feature key action from [FEP Boot/Cancel (Type in Roman Letters)], [FEP Boot/Cancel (Type in Hiragana)], [Kana Conversion], [Input Mode Change], or [Cancel (For FEP Feature)].
	FEP Boot/Cancel (Type in Roman Letters), FEP Boot/Cancel (Type in Hiragana)	<ul style="list-style-type: none"> FEP Boot/Cancel (Type in Roman Letters) Boots/cancels the FEP (Type in Roman letters) each time you touch the keypad. FEP Boot/Cancel (Type in Hiragana) Boots/cancels the FEP (Type in Hiragana) each time you touch the keypad.
	FEP Display Position	<p>Select the display position of the Japanese FEP Window from [Top] or [Bottom].</p> <p>When [Top] is selected</p>  <p>When [Bottom] is selected</p>  <p>NOTE</p> <ul style="list-style-type: none"> This can be set only when the [FEP Feature Action] is [FEP Boot/Cancel (Type in Roman Letters)] or [FEP Boot/Cancel (Type in Hiragana)].

Continued

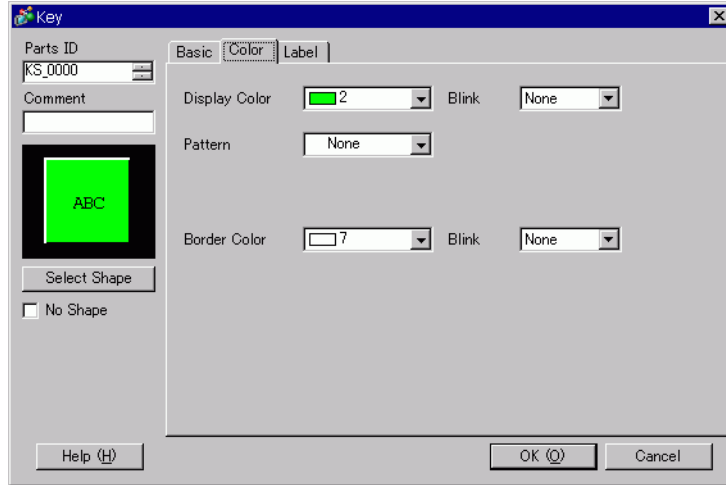
Setting		Description
Action	FEP Feature Action	<ul style="list-style-type: none"> • Kana Conversion Changes the character type in the order of Double-byte Katakana-> Single-byte Katakana -> Hiragana each time you touch the keypad after the FEP is started. • Input Mode Change Select the input mode from Roman Letters or Hiragana. Performs the toggle switch action between [Roman Letters] and [Hiragana] each time you touch the Input Mode Change key for FEP Feature. Combine this key with the [Change Keypad] key. <p>NOTE</p> <ul style="list-style-type: none"> • When you place the [Change Keypad] key on the [Input Mode Change] key, place them in the order of the [Input Mode Change] key [Change Keypad] key. If you place them in the reversed order, keypads are changed first and input modes will not be changed. • Cancel Cancels the input of characters to be converted and the display of candidates for conversion.


■ Basic Settings/Extended



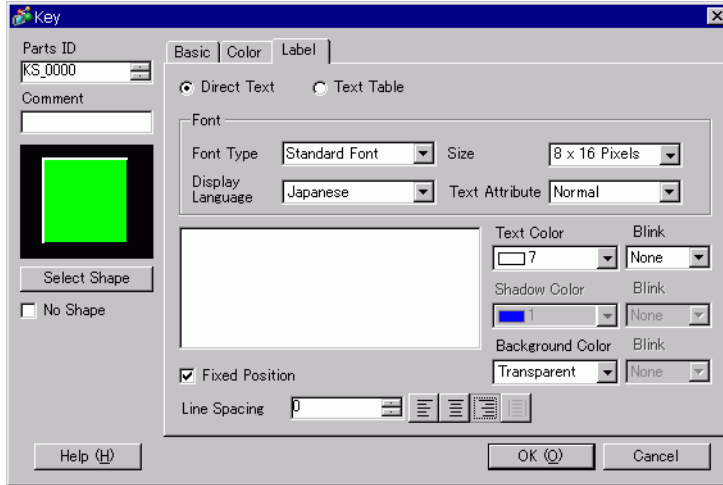
Setting	Description
Continuous Action Feature	Select whether or not the operation will continuously repeat while the switch is touched. <div style="border: 1px solid black; padding: 2px; margin: 5px 0;">NOTE</div> <ul style="list-style-type: none"> This feature can be set only when the [Action] is [Keypad Key] and one of [BS], [DEL], [Up Arrow], [Down Arrow], [Left Arrow], or [Right Arrow] is selected.
Preferences	Set the options for pressing the key.
Reverse Display	If selected, while the Key is pressed, the Touch Area display is reversed.
Buzzer	If selected, when the Key is pressed, the buzzer will sound.
AUX Output	If selected, the buzzer will sound in an auxiliary output, such as a speaker.

■ Color



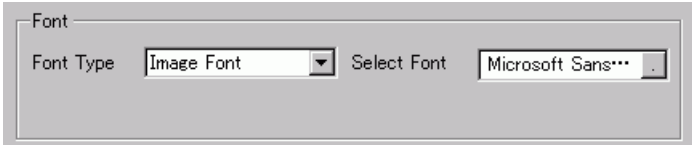
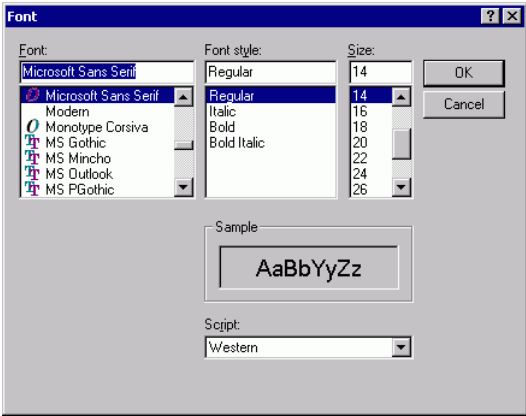
Setting	Description
Display Color	Set a background color for the Key Part.
Pattern	Set a pattern for the Key Part.
Pattern Color	Set a pattern color for the Key Part. NOTE <ul style="list-style-type: none"> You can only select [Transparent] for the [Pattern Color] when a [Pattern] is set.
Border Color	Set a border color for the Key Part.
Blink	Select the blink and blink speed. You can choose different blink settings for the [Display Color], [Pattern Color], and [Border Color]. NOTE <ul style="list-style-type: none"> There are cases where you can and can not set Blink depending on the Display Unit and System Settings [Color].  "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)

■ Label



Setting	Description
Direct Text/Text Table	Select the text type. <ul style="list-style-type: none"> • Direct Text Input the text into the text window, and it is placed directly as fixed text. • Text Table Use text from a previously saved Text Table. 🖱️ "17.9.3 Text Table Settings Guide" (page 17-62)
Font	Set the font for the Key label.
Font Type	Choose the font type from [Standard Font], [Stroke Font], or [Image Font].
Standard Font/ Stroke Font	<ul style="list-style-type: none"> • Standard Font This bitmap font displays quickly, because it is composed of dots. • Stroke Font This vector font maintains its shape when enlarged, because it's framework is described with lines. If you select [Stroke Font], the [Automatically Adjust Text Size] option appears. By selecting this option, the font size adjusts automatically to fit the text in the part.
Automatically Adjust Text Size	If you select [Stroke Font], the [Automatically Adjust Text Size] option appears. By selecting this option, the font size adjusts automatically to fit the text in the part. <div data-bbox="422 1406 1232 1568" style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> </div> 🖱️ "17.9.8 Placing Text When Using Text Tables ♦ Automatically Adjust Text Size" (page 17-76)

Continued

Setting		Description
Standard Font/Stroke Font	Size	<p>Choose a font size for the Key. Standard Font: (8 to 64) x (8 to 128) Standard Font (Fixed Size): [6x10], [8x13], [13x23] Stroke Font: 6 to 127</p> <p>When using [Automatically Adjust Text Size], define the [Maximum Size] and [Minimum Size] of fonts. The text font size is adjusted within this range.</p>
	Display Language	Select a text language from [Japanese], [ASCII], [Chinese (Traditional)], [Chinese (Simplified)], [Korean], [Cyrillic], or [Thai].
	Text Attribute	<p>Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow] (When using the [6x10] font size, select either [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]</p>
Font	Image Font	<p>Displays a Windows font as bitmap data. This can be selected when the Text Type is [Direct Text].</p> 
	Select Font	<p>The [Font] dialog box appears. Select the font, style, and size.</p> 
Text [Input Box]	<p>If [Direct Text] is selected, input the text.</p> <p>NOTE</p> <ul style="list-style-type: none"> When you select a switch and press the [F2] key, you can directly edit the text on the label. 	
Text Color	Select a color for the text to display.	
Shadow Color	When the [Font Type] is [Standard Font] and the [Text Attribute] is [Shadow], set a color for the shadow.	
Background Color	Select a background color for the text to display.	

Continued

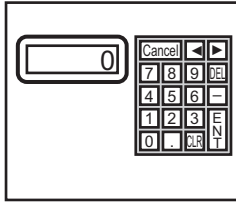
Setting	Description
Blink	<p>Select the blink and blink speed. You can set different blink settings for [Text Color], [Shadow Color], and [Background Color].</p> <p>NOTE</p> <ul style="list-style-type: none">• There are cases where you can and can not set Blink depending on the Display Unit and System Settings [Color]. <p>☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)</p>
Fixed Position	When clicked, the Label is positioned in the center of the Key Part.
Line Spacing	<p>Set a value from 0 to 255. This is only applicable when in the [Text] field you add multiple lines of text.</p> <p>This option cannot be used when the [Font Type] is set to [Image Font].</p>
Align	Aligns the inputted text. If the text is two lines or more, you can select [Align Left], [Align Right], or [Align Center]. When [Font Type] is [Image Font], you can also select [Justified].

15.7 Restrictions

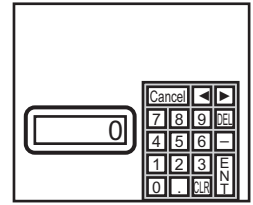
15.7.1 Popup Keypad Restrictions

- When there are two Data Displays on a screen, and one enables input by [Touch], and the other enables input by [Bit], you cannot enable the Data Display by [Touch] when the Data Display enabled by [Bit] is already ON.
- When a pop-up keypad placed with [Specify Location] exceeds the GP display screen area, the pop-up keypad appears in the bottom right corner of the placed data part.
- The pop-up keypad displays when the [Specify Location] is set to [Disable]

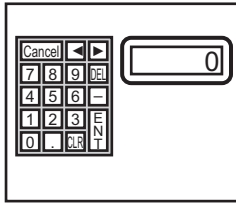
Normally a pop-up keypad appears to the right of the data display, starting at the top right corner of the data display.



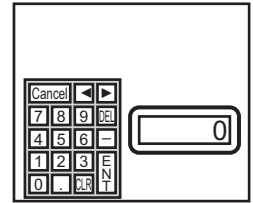
If there is not enough space to display a keypad at the bottom of the screen, the keypad appears with its vertical position adjusted.



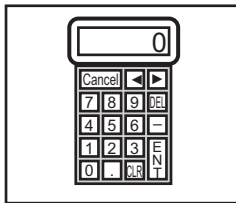
If there is not enough space to display a keypad at the right of the screen, the keypad appears to the left of the data display, starting at the top left corner of the data display.



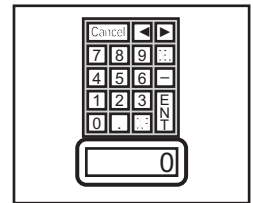
If there is not enough space to display a keypad at the right or bottom of the screen, the keypad appears to the left of the data display with its vertical position adjusted.



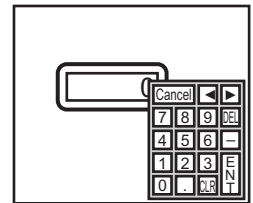
If there is not enough space to display a keypad at the right, left, or top of the screen, the keypad appears under the data display.



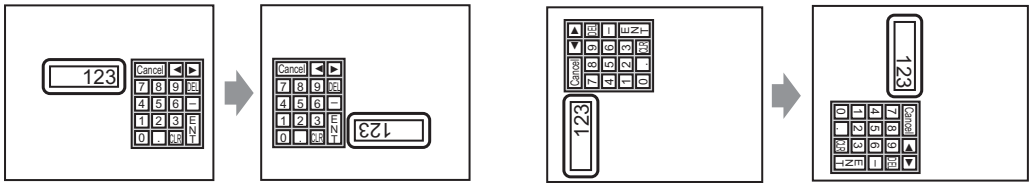
If there is not enough space to display a keypad at the right, left, or bottom of the screen, the keypad appears on the top of the data display.



If there is insufficient space to display the keypad in all directions, the keypad will display at the bottom right of the screen. In this case, the keypad may display overtop the data display area and hide inputs.



- Even if you rotate a Data Display, the pop-up keypad will not always display with the exact same rotation.



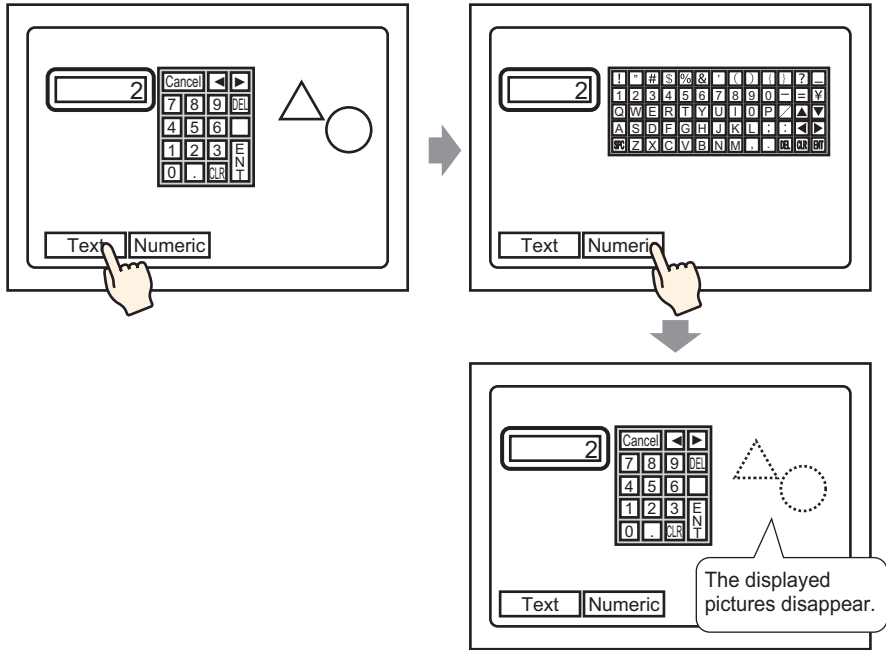
- A [Detailed Error Window] or a local window is used to display a pop-up keypad. If the maximum number of windows already display, the File Manager does not appear. Close another window to display the pop-up keypad.
☞ 12.8 Restrictions for Windows ■ Displaying Multiple Windows on a Single Screen 12-31.
- You cannot input from a popup keypad into a Data Display placed on a Window. To input data into a Data Display on a Window, directly place the keypad in the Window.
- If another window overrides the pop-up keypad, you can switch to the keypad display by touch.
- If the display entered interlock mode during data input, the pop-up keypad remains open and allows input. The next time you touch the data display, the pop-up keypad is interlocked and will not display. Touch the Cancel key to exit the pop-up keypad without inputting data. Touching the data display does not close the keypad.
- You cannot set a display color, display position, font, or text size for the inputting display when you input numeric values or text and the alarm value display.

15.7.2 Keypad Restrictions

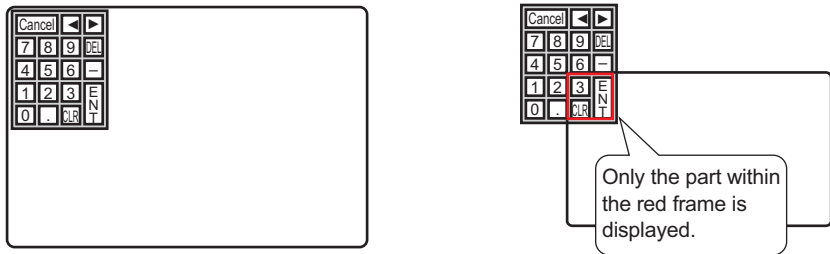
- All you can place on a keypad registration screen is [Key Part] and [Draw] (Dot, Line/ Polyline, Circle/Oval, Rectangle, Arc/Pie, Polygon, Scale, Table, and Text).
- Do not set up parts on the screen when using call screen to load in a keypad registration screen. The operation of the keypad screen may be affected. The parts will not operate properly.

15.7.3 Clear Area Restrictions

- If pictures and text are hidden by switching to a larger keypad display, they will remain hidden and cannot display again by switching to a smaller keypad. Do not place pictures, text and other parts in the area where a keypad appears on the Base Screen.



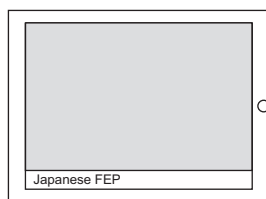
- If the GP models are changed in [System Settings], the Clear Area and the Parts placed on the Base will appear with the same sizes and positions as before.



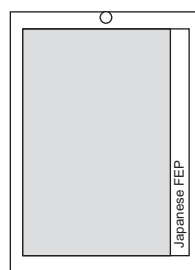
15.7.4 Restrictions for Japanese FEP

■ Actions and Display

- To perform Kanji conversion, first touch the [FEP] key. If you do not touch the [FEP] key before entering text, you cannot perform Kanji conversion.
- If [Allow Input] wasn't selected for the data display, you cannot perform Kanji conversion, even when you touch the [FEP] key.
- The Japanese FEP inputs and displays characters to be converted in the System Menu Window.
- Japanese FEP is available when in the Data Display's [Display] tab, the [Display Language] is set to [Japanese].
- The Japanese FEP window appears at the same position on the GP with the vertical setting as well.



Horizontal setting



Vertical setting

- If you exit input mode in a Data Display while the FEP is active, the FEP also exits. Changing screens also exits the FEP.
- The System Menu Window display position can be selected from the top or the bottom.
- This feature includes a "Learning" function that displays previously used words in the conversion candidates. This Learning function uses the Backup SRAM. The maximum size for the Backup SRAM is about 1 KB (approx. 100 words). If it gets full, the Learning function deletes candidates beginning with the lowest frequency.

