Chapter 10 Digital Keypad

10-1 Descriptions of Digital Keypad

KPC-CC01

Communication Interface
RJ45 (socket), RS-485 interface

Communication protocol:
RTU19200, 8, N, 2

Installation Method
1. The embedded type can be installed flat on the surface of the control box. The front cover is waterproof.
2. Buy a MKC-KPPK model for wall mounting or embedded mounting. Its protection level is IP66.
3. The maximum RJ45 extension lead is 5 m (16ft).
4. This keypad can only be used on Delta's motor drive C2000 series, CH2000 and CP2000 series.

Keypad Function Description

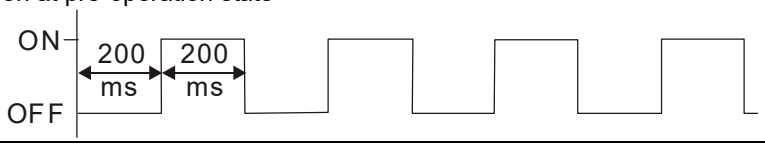
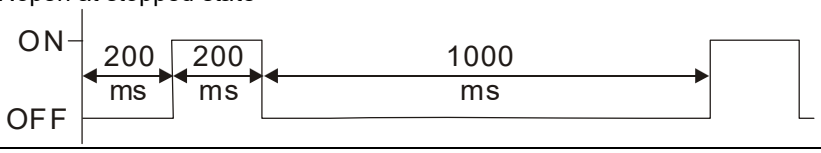
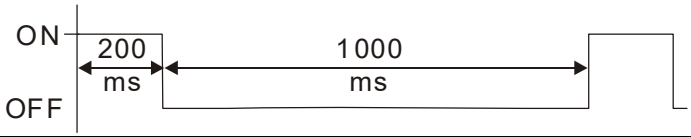
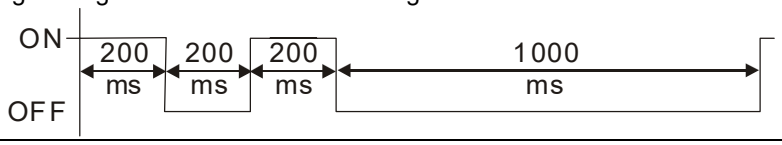
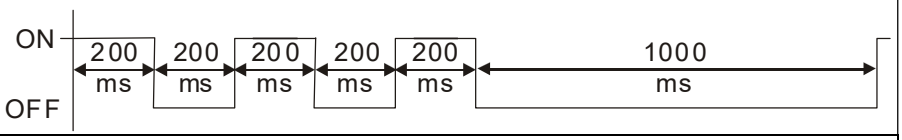
Key	Descriptions
RUN	Start Operation Key 1. Only valid when the source of operation command is the keypad. 2. Operates the AC motor drive by the function setting. The RUN LED will be ON. 3. Can be pressed repeatedly at the stop process.
STOP RESET	Stop Command Key. 1. This key has the highest priority when the command is from the keypad. 2. When it receives the STOP command, regarless of whether the AC motor drive is in operation or stop status, the AC motor drive executes the "STOP" command. 3. Use the RESET key to reset the drive after a fault occurs. 4. If you cannot reset after the error: a. The condition which triggers the fault is not cleared. After you clear the condition, you can then reset the fault. b. The drive is in fault status when powered on. After you clear the condition, restart and then you can reset the fault.
FWD REV	Operation Direction Key 1. Only controls the operation direction, NOT the drive activation. FWD: forward, REV: reverse. 2. Refer to the LED descriptions for more details.
ENTER	ENTER Key Goes to the next menu level. If at the last level, press ENTER to execute the command.
ESC	ESC Key Leaves the current menu and returns to the previous menu; also functions as a return key or cancel key in a sub-menu.
MENU	Returns to the main menu. Menu commands: 1. Parameter Setup 2. Quick Start 3. Application Selection List 4. Changed List 5. Copy Parameter 6. Fault Record 7. Language Setup 8. Time Setup 9. Keypad Locked 10. PLC Function 11. Copy PLC 12. Display Setup 13. Start-up Menu 14. Main Page 15. PC Link 16. Start Wizard
^ v < >	Direction: Left / Right / Up / Down 1. In the numeric value setting mode, moves the cursor and changes the numeric value. 2. In the menu / text selection mode, selects an item.

Key	Descriptions
F1 F2 F3 F4	Function Key 1. The functions keys have defaults and can also be use-defined. The defaults for F1 and F4 work with the function list below. For example, F1 is the JOG function, and F4 is a speed setting key for adding / deleting user-defined parameters. 2. Other functions must be defined using TPEditor. Download TPEditor software at Delta website. Select TPEditor version 1.60 or above. Refer to the installation instruction for TPEditor in Section 10-3.
HAND	HAND Key 1. Use this key to select HAND mode. In this mode, the drive's parameter settings for frequency command source is Pr.00-30, and that for operation command source is Pr.00-31. 2. Press the HAND key at STOP, then the setting switches to the HAND frequency source and HAND operation source. 3. Press HAND key at RUN, and it stops the AC motor drive first (displays AHSP warning), and switches to HAND frequency source and HAND operation source. 4. Successful mode switching for the KPC-CC01 displays HAND mode on the screen.
AUTO	AUTO Key 1. The default of the drive is AUTO mode. 2. Use this key to select AUTO mode. In this mode, the drive's parameter settings for frequency command source is Pr.00-20, and that for operation command is Pr.00-21. 3. Press the AUTO key at STOP, then the setting switches to the AUTO frequency source and AUTO operation source. 4. Press AUTO key at RUN, and it stops the AC motor drive first (displays AHSP warning), and switches to AUTO frequency source and AUTO operation source. 5. Successful mode switching for the KPC-CC01 displays AUTO mode on the screen

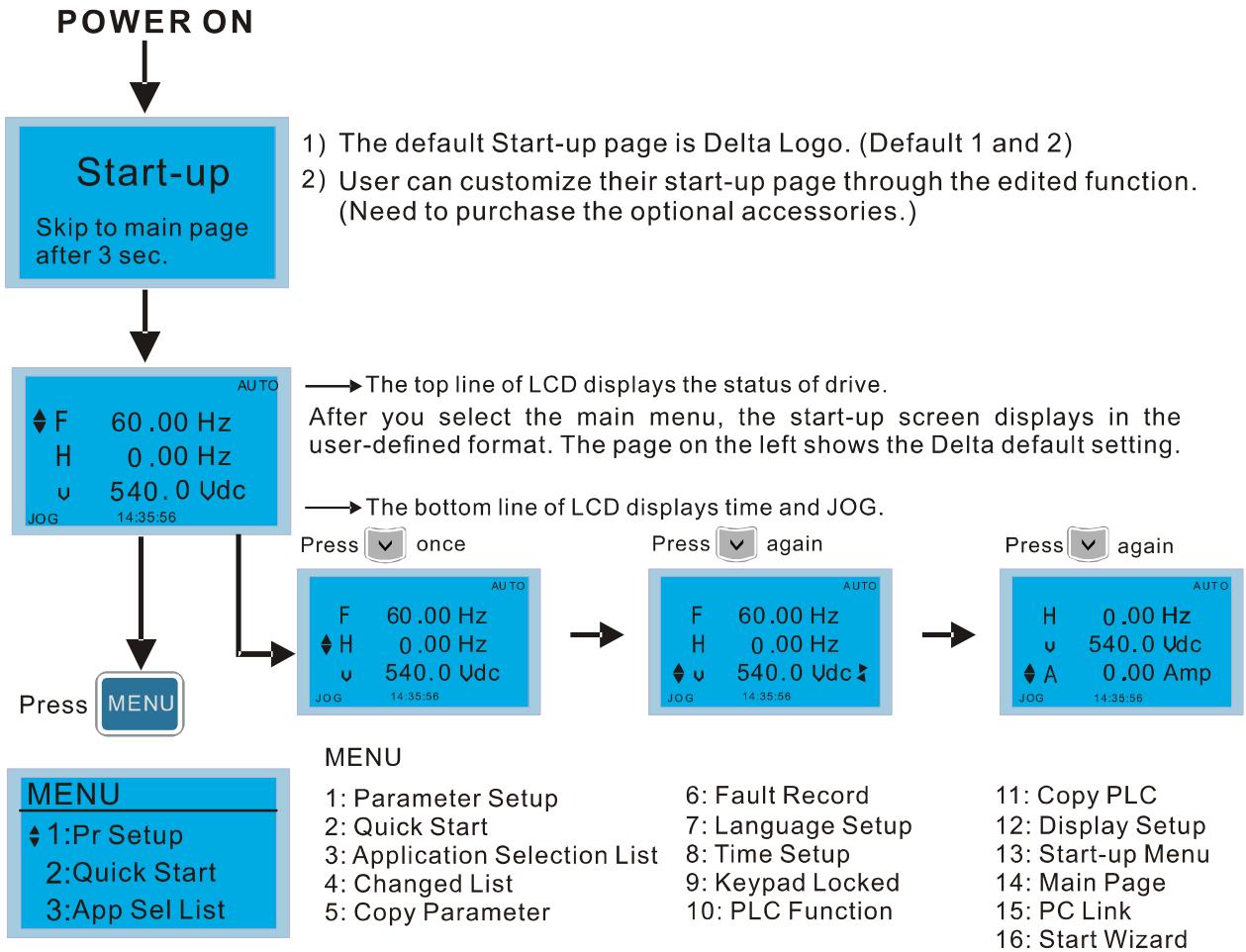
NOTE The defaults for the frequency command and operation command source of HAND / AUTO mode are both from the keypad.

LED Functions Descriptions

LED	Descriptions
STOP RESET	Steady ON: STOP indicator for the AC motor drive. Blinking: the drive is in standby. Steady OFF: the drive does not execute the "STOP" command.
FWD REV	Operation Direction LED 1. Green light: the drive is running forward. 2. Red light: the drive is running backward. 3. Flashing light: the drive is changing direction. Operation Direction LED under Torque Mode 1. Green light: when the torque command ≥ 0, and the motor is running forward. 2. Red light: when the torque command < 0, and the motor is running backward. 3. Flashing light: when the torque command < 0, and the motor is running forward.

<table>
<tr><th>LED</th><th>Descriptions</th></tr>
<tr><td>CANopen–RUN</td><td>RUN LED:
<table>
<tr><th>LED status</th><th>Condition / State</th></tr>
<tr><td>OFF</td><td>CANopen at initial state
No LED</td></tr>
<tr><td>Flashing</td><td>CANopen at pre-operation state
 
</td></tr>
<tr><td>Single flash</td><td>CANopen at stopped state
 
</td></tr>
<tr><td>ON</td><td>CANopen at operational state
 
</td></tr>
</table></td></tr>
<tr><td>CANopen–ERR</td><td>ERR LED:
<table>
<tr><th>LED status</th><th>Condition / State</th></tr>
<tr><td>OFF</td><td>No failure</td></tr>
<tr><td>Single flash</td><td>At least one packet of CANopen is in failure
 
</td></tr>
<tr><td>Double flash</td><td>Node guarding failure or heartbeat message failure
 
</td></tr>
<tr><td>Triple flash</td><td>Synchronization failure
 
</td></tr>
<tr><td>ON</td><td>Bus off
 
</td></tr>
</table></td></tr>
</table>

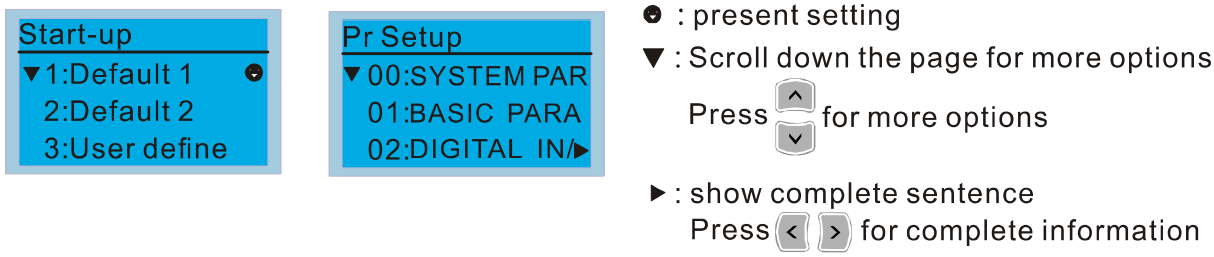
10-2 Function of Digital Keypad KPC-CC01



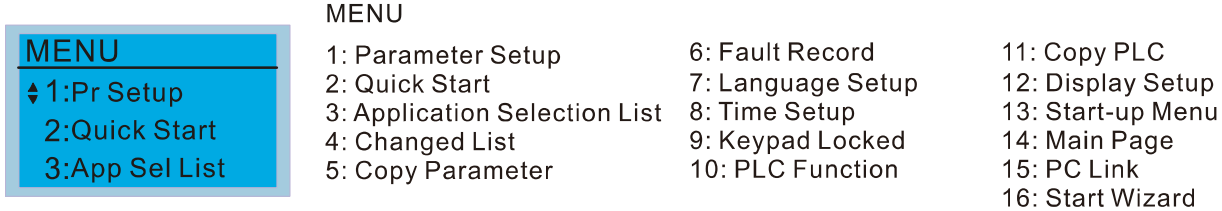
NOTE

1. Start-up screen can only display pictures, not animation.
2. When powered ON, it displays the start-up screen then the main screen. The main screen displays Delta's default setting F/H/A/U. You can set the display order with Pr.00-03 (Start-up display). When you select the U screen, use the left / right keys to switch between the items, and set the display order for the U screen with Pr.00-04 (User display).

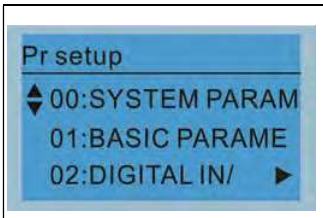
Display Icon



Display item



1. Parameter Setup

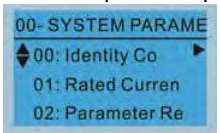


Press ENTER to select.

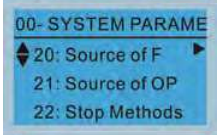
Press ^ v to select the parameter group.

Once you select a parameter group, press ENTER to go into that group.

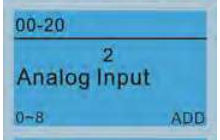
For example: Setup source for the master frequency command.



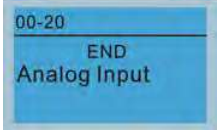
In the Group 00 Motor Drive Parameter, use Up/Down keys to select parameter 20: Auto Frequency Command.



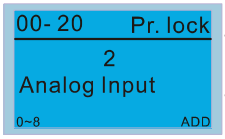
Press ENTER to go to this parameter's setting menu.



Use the Up/Down keys to choose a setting.
For example: choose 2 Analogue Input, and then press ENTER key.

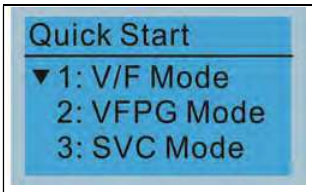


After you press ENTER, END is displayed which means that the parameter setting is done.



NOTE: When parameter lock / password protection function is enabled, it displays "Pr. lock" on the upper right corner of the keypad. The parameter cannot be written or is protected by the password under this circumstances.

2. Quick Start

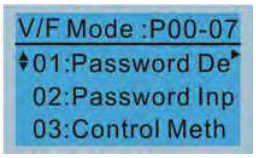


Press ENTER to select.

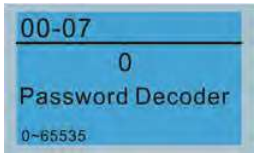
Quick Start:
1. V/F Mode
2. VFPG Mode
3. SVC Mode
4. FOCPG Mode
5. TQCPG Mode
6. My Mode

Description:

1. VF Mode



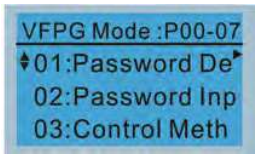
01:Password Decoder



Items
1. Parameter protection password input (Pr.00-07)
2. Parameter protection password setting (Pr.00-08)
3. Control mode (Pr.00-10)
4. Speed control mode (Pr.00-11)
5. Load selection (Pr.00-16)
6. Carrier frequency (Pr.00-17)
7. Master frequency command source / Source selection of the PID target (AUTO)(Pr.00-20)
8. Operation command source (AUTO) (Pr.00-21)
9. Stop method (Pr.00-22)
10. Digital keypad STOP function (Pr.00-32)
11. Max. operation frequency (Pr.01-00)
12. Output frequency of motor 1 (Pr.01-01)
13. Output voltage of motor 1 (Pr.01-02)
14. Mid-point frequency 1 of motor 1 (Pr.01-03)
15. Min-point voltage 1 of motor 1 (Pr.01-04)
16. Mid-point frequency 2 of motor 1 (Pr.01-05)
17. Mid-point voltage 2 of motor 1 (Pr.01-06)
18. Min. output frequency of motor 1 (Pr.01-07)
19. Min. output voltage of motor 1 (Pr.01-08)
20. Output frequency upper limit (Pr.01-10)
21. Output frequency lower limit (Pr.01-11)
22. Acceleration time 1 (Pr.01-12)
23. Deceleration time 1 (Pr.01-13)
24. Over-voltage stall prevention (Pr.06-01)
25. Derating protection (Pr.06-55)

26. Software brake chopper action level (Pr.07-00)
27. Speed tracking during start-up (Pr.07-12)
28. Emergency stop (EF) & force to stop selection (Pr.07-20)
29. Torque command filter time (Pr.07-24)
30. Slip compensation filter time (Pr.07-25)
31. Torque compensation gain (Pr.07-26)
32. Slip compensation gain (Pr.07-27)

2. VFPG Mode



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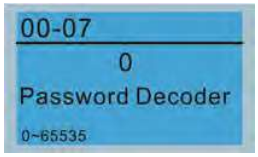
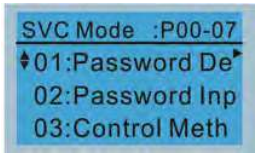


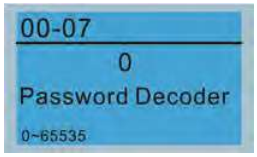
Items
1. Parameter protection password input (Pr.00-07)
2. Parameter protection password setting (Pr.00-08)
3. Control mode (Pr.00-10)
4. Speed control mode (Pr.00-11)
5. Load selection (Pr.00-16)
6. Master frequency command source (AUTO) / Source selection of the PID target (Pr.00-20)
7. Operation command source (AUTO) (Pr.00-21)
8. Stop method (Pr.00-22)
9. Digital keypad STOP function (Pr.00-32)
10. Max. operation frequency (Pr.01-00)
11. Output frequency of motor 1 (Pr.01-01)
12. Output voltage of motor 1 (Pr. 01-02)
13. Min. output frequency of motor 1 (Pr.01-07)
14. Min. output voltage of motor 1 (Pr.01-08)
15. Output frequency upper limit (Pr.01-10)
16. Output frequency lower limit (Pr.01-11)
17. Acceleration time 1 (Pr.01-12)
18. Deceleration time 1 (Pr.01-13)
19. Over-voltage stall prevention (Pr.06-01)
20. Software brake chopper action level (Pr.07-00)
21. Torque command filter time (Pr.07-24)
22. Slip compensation filter time (Pr.07-25)
23. Slip compensation gain (Pr.07-27)
24. Encoder type selection (Pr.10-00)
25. Encoder pulses per revolution (Pr.10-01)
26. Encoder input type setting (Pr.10-02)
27. ASR 1 gain (Pr.11-06)
28. ASR 1 integral time (Pr.11-07)
29. ASR 2 gain (Pr.11-08)
30. ASR 2 integral time (Pr.11-09)
31. ASR gain of zero speed (Pr.11-10)
32. ASR1 integral time of zero speed (Pr.11-11)

3. SVC Mode



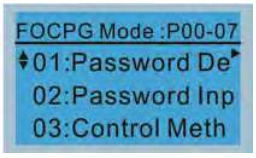
01: Password Decoder

Items
1. Parameter protection password input (Pr.00-07)
2. Parameter protection password setting (Pr.00-08)
3. Control mode (Pr.00-10)
4. Speed control mode (Pr.00-11)
5. Load selection (Pr.00-16)
6. Carrier frequency (Pr.00-17)
7. Master frequency command source (AUTO) / Source selection of the PID target (Pr.00-20)

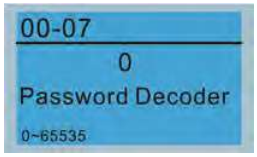


8. Operation command source (AUTO) (Pr.00-21)
9. Stop method (Pr.00-22)
10. Digital keypad STOP function (Pr.00-32)
11. Max. operation frequency (Pr.01-00)
12. Output frequency of motor 1 (Pr.01-01)
13. Output voltage of motor 1 (Pr.01-02)
14. Min. output frequency of motor 1 (Pr.01-07)
15. Min. output voltage of motor 1 (Pr.01-08)
16. Output frequency upper limit (Pr.01-10)
17. Output frequency lower limit (Pr.01-11)
18. Acceleration time 1 (Pr.01-12)
19. Deceleration time 1 (Pr.01-13)
20. Full-load current for induction motor 1 (Pr.05-01)
21. Rated power for induction motor 1 (Pr.05-02)
22. Rated speed for induction motor 1 (Pr.05-03)
23. Number of poles for induction motor 1 (Pr.05-04)
24. No-load current for induction motor 1 (Pr.05-05)
25. Over-voltage stall prevention (Pr.06-01)
26. Over-current stall prevention during acceleration (Pr.06-03)
27. Derating protection (Pr.06-55)
28. Software brake chopper action level (Pr.07-00)
29. Emergency stop (EF) & force to stop selection (Pr.07-20)
30. Torque command filter time (Pr.07-24)
31. Slip compensation filter time (Pr.07-25)
32. Slip compensation gain (Pr.07-27)

4. FOCPG Mode



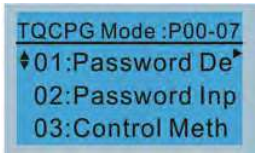
01: Password Decoder



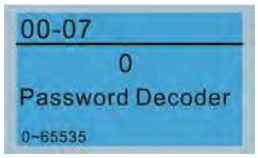
Items
1. Parameter protection password input (Pr.00-07)
2. Parameter protection password setting (Pr.00-08)
3. Control mode (Pr.00-10)
4. Speed control mode (Pr.00-11)
5. Master frequency command source (AUTO) / Source seletion of the PID target (Pr.00-20)
6. Operation command source (AUTO) (Pr.00-21)
7. Stop method (Pr.00-22)
8. Max. operation frequency (Pr.01-00)
9. Output frequency of motor 1 (Pr.01-01)
10. Output voltage of motor 1 (Pr.01-02)
11. Output frequency upper limit (Pr.01-10)
12. Output frequency lower limit (Pr.01-11)
13. Acceleration time 1 (Pr.01-12)
14. Deceleration time 1 (Pr.01-13)
15. Full-load current for induction motor 1 (Pr.05-01)
16. Rated power for induction motor 1 (Pr.05-02)
17. Rated speed for induction motor 1 (Pr.05-03)

18. Number of poles for induction motor 1 (Pr.05-04)
19. No-load current for induction motor 1 (Pr.05-05)
20. Over-voltage stall prevention (Pr.06-01)
21. Over-current stall prevention during acceleration (Pr.06-03)
22. Derating protection (Pr.06-55)
23. Software brake chopper action level (Pr.07-00)
24. Emergency stop (EF) & force to stop selection (Pr.07-20)
25. Encoder type selection (Pr.10-00)
26. Encoder pulses per revolution (Pr.10-01)
27. Encoder input type setting (Pr.10-02)
28. System control (Pr.11-00)
29. Per-unit of system inertia (Pr.11-01)
30. ASR1 low-speed bandwidth (Pr.11-03)
31. ASR2 high-speed bandwidth (Pr.11-04)
32. Zero-speed bandwidth (Pr.11-05)

5. TQCPG Mode



01: Password Decoder

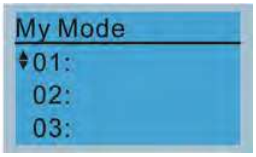


Items

1. Parameter protection password input (Pr.00-07)
2. Parameter protection password setting (Pr.00-08)
3. Control mode (Pr.00-10)
4. Speed control mdoe (Pr.00-11)
5. Master frequency command source (AUTO) / Source selection of the PID target (Pr.00-20)
6. Operation command source (AUTO) (Pr.00-21)
7. Max. operation frequency (Pr.01-00)
8. Output frequency of motor 1 (Pr.01-01)
9. Output voltage of motor 1 (Pr.01-02)
10. Full-load current for induction motor 1 (Pr.05-01)
11. Rated power for induction motor 1 (Pr.05-02)
12. Rated speed for induction motor 1 (Pr.05-03)
13. Number of poles for induction motor 1 (Pr.05-04)
14. No-load current of induction motor 1 (Pr.05-05)
15. Over-voltage stall prevention (Pr.06-01)
16. Software brake chopper action level (Pr.07-00)
17. Encoder type selection (Pr.10-00)
18. Encoder pulses per revolution (Pr.10-01)
19. Encoder input type setting (Pr.10-02)
20. System control (Pr.11-00)
21. Per-unit of system inertia (Pr.11-01)
22. ASR1 low-speed bandwidth (Pr.11-03)
23. ASR2 high-speed bandwidth (Pr.11-04)
24. Zero-speed bandwidth (Pr.11-05)
25. Max. torque command (Pr.11-27)
26. Torque offset source (Pr.11-28)
27. Torque offset setting (Pr.11-29)

28. Torque command source (Pr.11-33)
29. Torque command (Pr.11-34)
30. Speed limit selection (Pr.11-36)
31. Forward speed limit (torque mode) (Pr.11-37)
32. Reverse speed limit (torque mode) (Pr.11-38)

6. My Mode



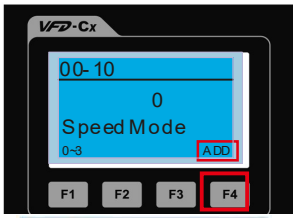
Press F4 in parameter setting screen to save the parameter to My Mode. To delete or correct the parameter, select this parameter and press F4 for DEL in the bottom right corner.

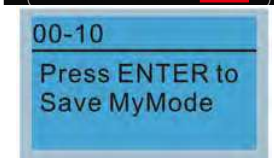
Items

It can save 1–32 sets of parameters (Pr).

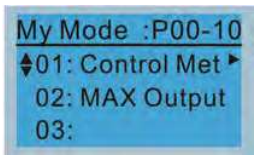
Setup process

1. Go to Parameter Setup function.
   Press ENTER to select the parameter to use. There is an ADD on the bottom right corner of the screen. Press F4 to add this parameter to My Mode.

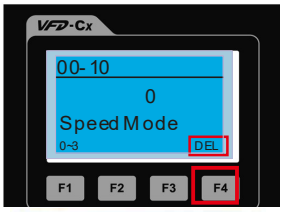


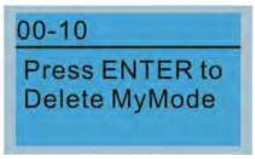


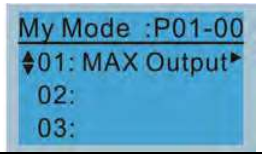
2. The parameter (Pr) displays in My mode if it is properly saved.
   To correct or to delete this parameter, press F4 for DEL.



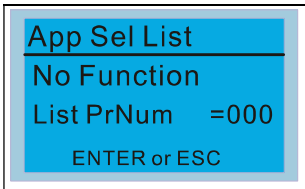
3. To delete a parameter, go to My Mode and select the parameter to delete.
   Press ENTER to enter the parameter setting screen. DEL appears in the bottom left corner of the screen. Press F4 to delete this parameter from My Mode.





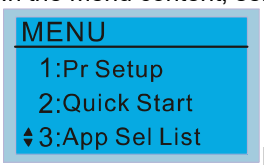
	4. After you press ENTER to delete <01 Control Mode>, the <02 Maximum Operating Frequency > automatically replaces <01 Control Mode>. 

3. Application Selection List

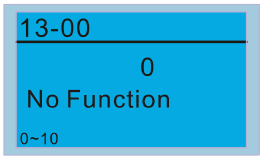


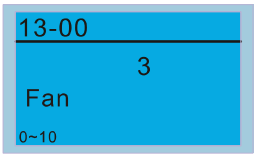
This function enables you to select application and its parameters sets.

Example:
In the menu content, select 3: Application Selection List



Press ENTER to go into the Application Selection List

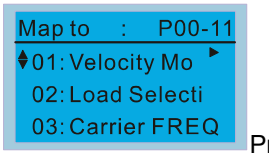




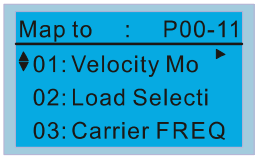
Select Application

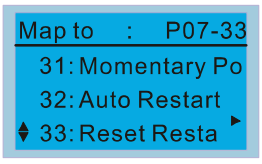
Press ENTER to enter the application selection screen, and the selected application industry is “Fan”.

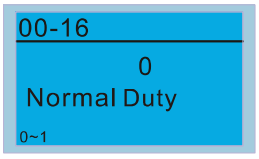
Press ENTER to enter the Fan application screen.



Press the Up / Down keys to select the parameter to set.

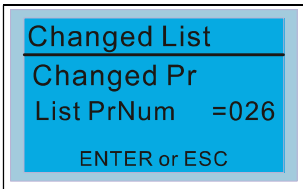






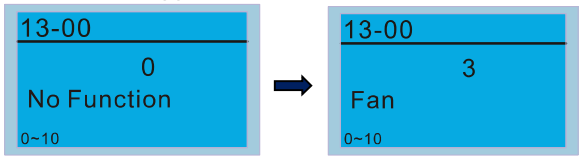
Choose 0: Normal duty or 1: Heavy duty according to your needs, then press ENTER.

4. Changed List

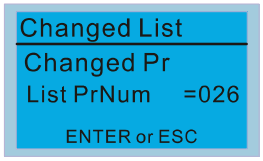


This function records the parameters you have changed.

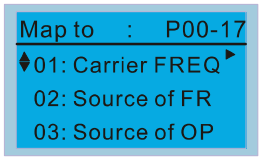
Example:
Set Pr.13-00 Application Selection = 3: Fan



Enter the changed list screen. List PrNum=026 means that there are 26 parameters that have been changed.

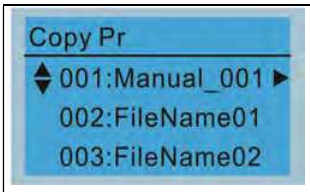


Press ENTER to enter the changed list screen.



Use the Up / Down keys to select the parameters to check or to change.
Press ENTER to enter the parameter.

5. Copy Parameter

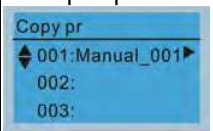


Press ENTER to go to

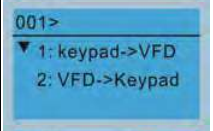
001–004 content storage

Four groups of parameters are available to copy
The steps are shown in the example below.

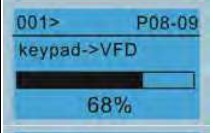
Example: parameter saved in the motor drive.



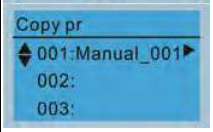
1. Go to Copy Parameter
2. Select the parameter group to copy and press ENTER.



1. Select 1: keypad→VFD
2. Press ENTER to go to the “keypad→VFD” screen.

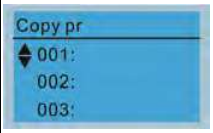


Begin copying parameters until it is done.

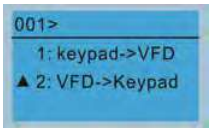


After copying is done, the keypad automatically returns to this screen.

Example: parameter saved in the keypad.



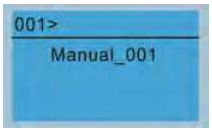
1. Go to Copy parameter
2. Select the parameter group to copy and press ENTER.



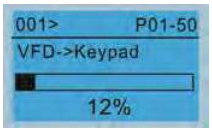
Press ENTER to go to the “VFD→keypad” screen.

Press the Up / Down keys to select a symbol.
Press the Left / Right keys to move the cursor to select a file name.

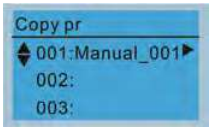
String & Symbol Table:
！” ＃＄％＆’ （） ＊＋，－・／０１２３４５６７８９：；＜＝＞？@ＡＢＣＤＥＦＧ
ＨＩＪＫＬＭＮＯＰＱＲＳＴＵＶＷＸＹＺ〔＼〕＾＿ ‘ａｂｃｄｆｇｈｉｊｋｌｍｎｏ
ｐｑｒｓｔｕｖｗｘｙｚ｛｜｝～



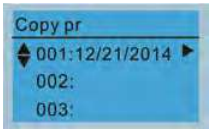
After you confirm the file name, press ENTER.



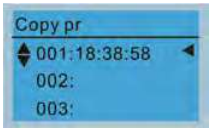
Begin copying parameters until it is done.



After copying parameters is done, the keypad automatically returns to this screen.



Press the Right key to see the date of the parameters copied.

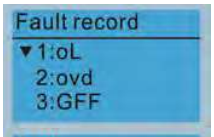


Press the Right key to see the time of the parameters copied.

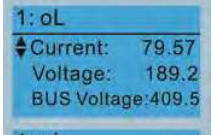
6. Fault Record

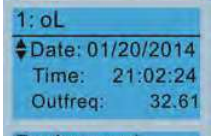
Press ENTER to see an error record’s details.

Able to store 6 error codes (Keypad V1.02 and previous versions)
Able to store 30 error codes (Keypad V1.20 and later version)
The most recent error record shows as the first record. Choose an error record to see details such as date, time, frequency, current, voltage, and DC bus voltage)

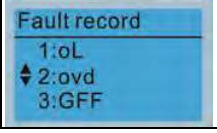


Press the Up / Down keys to select an error record.
Press ENTER to see that error record’s details.

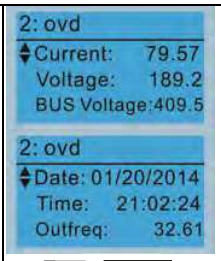




Press the Up / Down keys to scroll through an error record’s details such as date, time, frequency, current, voltage, and DC bus voltage.



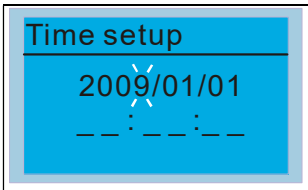
Press the Up / Down keys to select the next error code.
After selecting an error code, press ENTER to see that error record’s details.

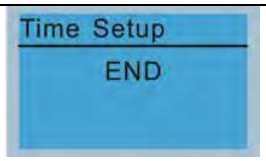
		Press the Up / Down keys to see an error record's details such as date, time, frequency, current, voltage, and DC bus voltage. NOTE The AC motor drive actions are recorded and saved to the KPC-CC01. When you remove the KPC-CC01 and connect it to another AC motor drive, the previous fault records are not deleted. The new fault records of the new AC motor drive continue to be added to the KPC-CC01.

7. Language Setup

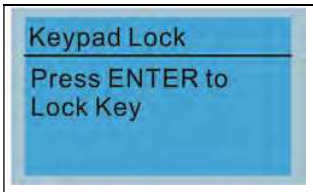
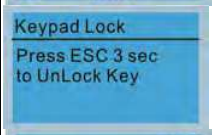
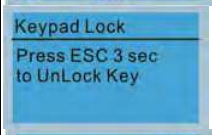
 Use the Up / Down keys to select the language, and than press ENTER.	The language setting option is displayed in the language of your choice. Language setting options: 1. English 5. Русский 9. Polski 2. 繁體中文 6. Español 10. Deutsch 3. 简体中文 7. Português 11. Italiano 4. Türkçe 8. Français 12. Svenska

8. Time Setup

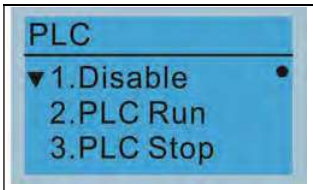
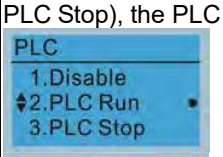
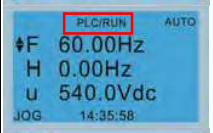
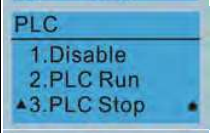
 Use the Left / Right keys to select Year, Month, Day, Hour, Minute or Second to change.		Press the Up / Down keys to set the Year Press the Up / Down keys to set the Month Press the Up / Down keys to set the Day Press the Up / Down keys to set the Hour Press the Up / Down keys to set the Minute Press the Up / Down keys to set the Second

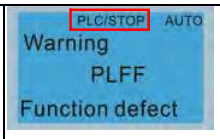
	 Press ENTER to confirm the Time Setup. NOTE Limitation: The charging process for the keypad super capacitor finishes in about 6 minutes. **When the digital keypad is removed, the time setting is saved for 7 days**. After 7 days, you must reset the time.

9. Keypad Locked

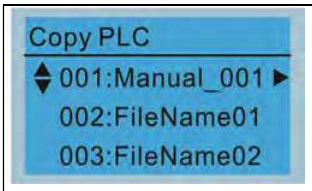
 Press ENTER to lock	Lock the keypad Use this function to lock the keypad. The main screen does not display "keypad locked" when the keypad is locked; however, it displays the message "Press ESC 3 sec to UnLock Key" when you press any key.  When the keypad is locked, the main screen does not indicate the lock status.  Press any key on the keypad; a message displays as shown on the left.  If you do not press the ESC key, the keypad automatically returns to this screen.  Press any key on the keypad, a message displays as shown on the left.  Press ESC for 3 seconds to unlock the keypad; the keypad returns to this screen. All keys on the keypad is functional. All keys on the keypad is functional. Turning the power off and on does not lock the keypad.

10. PLC Function

 Press the Up /Down keys to select a PLC function, and then press ENTER.	When activating and stopping the PLC function (choosing 2: PLC Run or 3: PLC Stop), the PLC status displays on main screen (Delta default setting).  Choose option 2: PLC Run to enable the PLC function.  The default on the main screen displays the PLC / RUN status message.  Choose option 3: PLC Stop to disable the PLC function.  The default on the main screen displays the PLC / STOP status message.

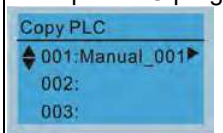
		If the PLC program is not available in the control board, the PLFF warning displays when you choose option 2 or 3. In this case, choose option 1: Disable to clear PLFF warning.

11. Copy PLC

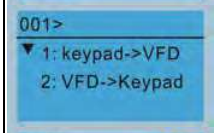


Four groups of parameters are available to copy.
The steps are shown in the example below.

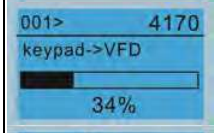
Example: PLC program saved in the motor drive.



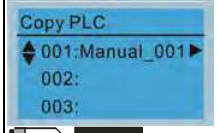
1. Go to Copy PLC
2. Select the PLC program to copy and press ENTER.



1. Select 1: Keypad→VFD
2. Press ENTER to go to the “Keypad→VFD” screen.

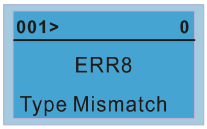


Begin copying the PLC program until it is done.

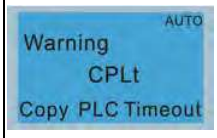


After copying is done, the keypad automatically returns to this screen.

NOTE

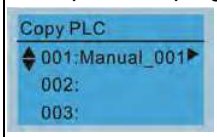


If you select “Option 1: Keypad→VFD”, check if the PLC program is built-in to the KPC-CC01 keypad. If the PLC program is not available in the keypad when you select “Option 1: Keypad→VFD”, an “ERR8 Warning: Type Mismatch” displays on the screen.



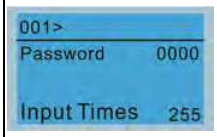
If you unplug the keypad and plug it back while copying the PLC program, the screen displays a CPLt warning.

Example: PLC program saved in the keypad.



1. Go to Copy PLC.
2. Select the PLC program to copy and press ENTER.

Press ENTER to go to the “VFD→Keypad” screen.

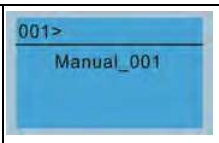
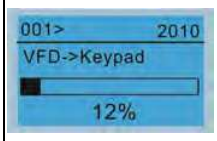
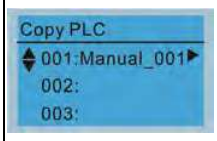
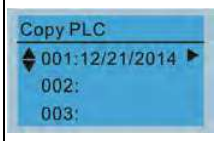
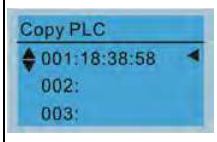


If the WPLSoft editor is installed uses password, enter the password to save the file to the keypad.

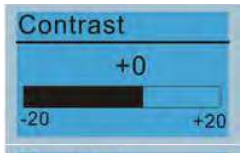
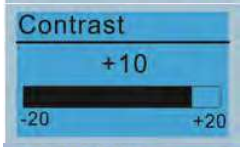
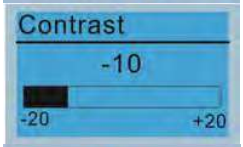
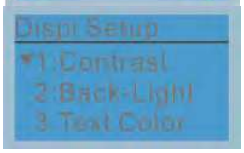
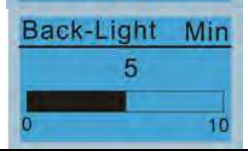
Press the Up / Down keys to select a symbol.
Press the Left / Right keys to move the cursor to select a file name.

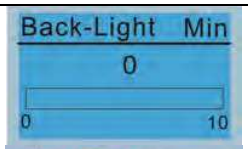
String & Symbol Table:

！” ＃＄％＆’ （）＊＋，－・／０１２３４５６７８９：；＜＝＞？@ＡＢ
ＣＤＥＦＧＨＩＪＫＬＭＮＯＰＱＲＳＴＵＶＷＸＹＺ〔＼〕＾＿ ‘ａｂｃｄ
ｆｇｈｉｊｋｌｍｎｏｐｑｒｓｔｕｖｗｘｙｚ｛｜｝～

	 After you confirm the file name, press ENTER.
	 Begin copying the PLC program until it is done.
	 After copying is done, the keypad automatically returns to this screen.
	 Press the Right key to see the date of the program copied.
	 Press the Right key to see the time of program copied.

12. Display setup

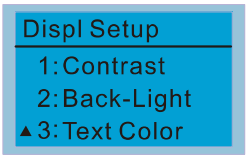
 Press ENTER to go to the setting screen.	1. Contrast  Press the Up / Down keys to adjust the setting value.  For example, increase Contrast to +10.  After you set the value, press ENTER to see the screen display after contrast is adjusted to +10.  Then press ENTER and decrease the Contrast to -10.  Press ENTER to see screen display after contrast is adjusted to -10. 2. Back-light  Press ENTER to go to the Back-Light Time Setting screen.  Press the Up / Down keys to adjust the setting value.



When the setting value is 0 Min, the backlight remains on.

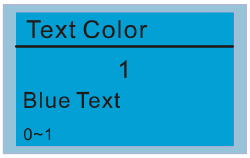
When the setting value is 10 Min, the backlight turns off in 10 minutes.

3. Text Color



Press ENTER go to the Text Color Setting screen.

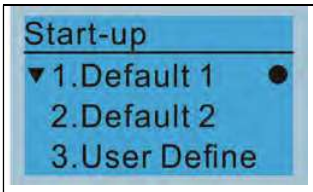
The default value is White Text.



Press the Up / Down keys to adjust the setting value, and then press ENTER.

The setting value changes to Blue Text.

13. Start-up



1. Default 1 DELTA LOGO

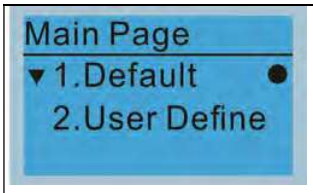
2. Default 2 DELTA Text

3. User Defined: an optional accessory is required (TPEditor & USB / RS-485 Communication Interface-IFD6530) to design your own start-up screen.
If the editor accessory is not installed, the User Define option displays a blank screen.

USB/RS-485 Communication Interface-IFD6530
Refer to Chapter 07 Optional Accessories for more details.

TPEditor
Download TPEditor software at Delta website. Select TPEditor version 1.60 or above. Refer to the installation instruction for TPEditor in Section 10-3.

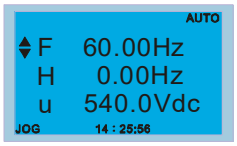
14. Main page



Default screen and editable screen are available.

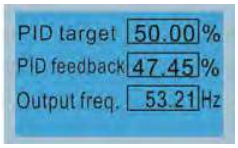
Press ENTER to select.

1. Default page



F 60.00Hz >>> H >>> A >>> U (options rotate)

2. User Define: an optional accessory is required (TPEditor & USB / RS-485 Communication Interface-IFD6530) to design your own main screen. If the editor accessory is not installed, the User Define option displays a blank screen.

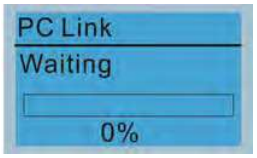


USB/RS-485 Communication Interface-IFD6530
Refer to Chapter 07 Optional Accessories for more details.

TPEditor
Download TPEditor software at Delta website. Select TPEditor version 1.60 or above. Refer to the installation instruction for TPEditor in Section 10-3.

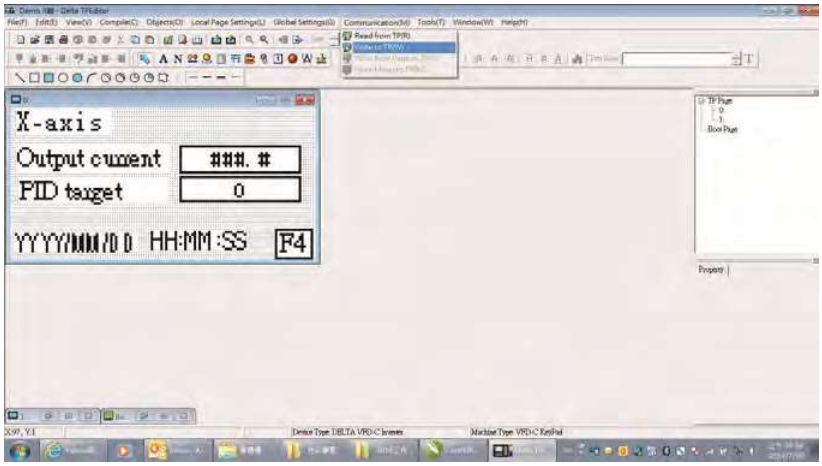
15. PC Link

1. TPEditor: This function enables you to connect the keypad to a computer then download and edit user-defined screens.

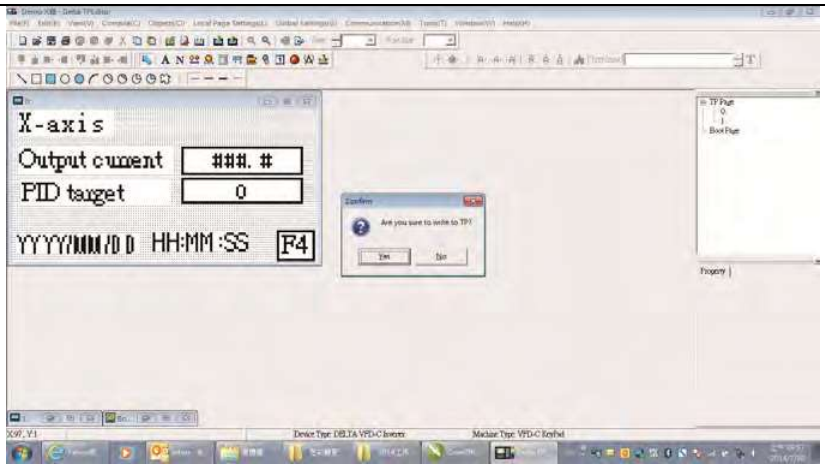


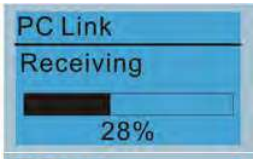
Press ENTER to go to Waiting to connect to PC screen.

In TPEditor, from the **Communication** menu, choose **Write to HMI**.

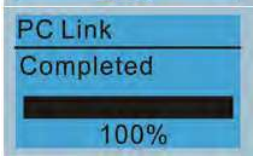


In the **Confirm** message box, click **YES**.





The software starts downloading screens to edit to the KPC-CC01.

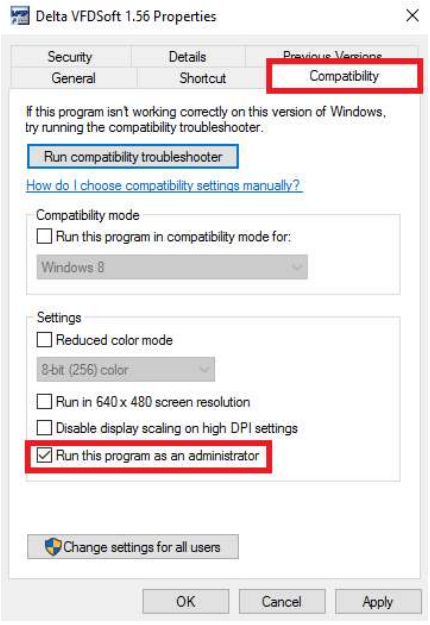


Download completed

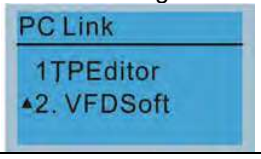
2. VFDSoft: this function enables you to link to the VFDSoft then upload the parameters 1–4 you have saved in the KPC-CC01.

NOTE

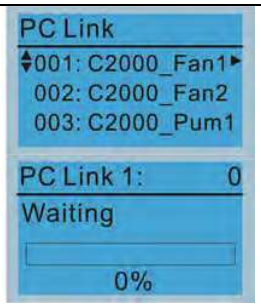
If the Operation System (OS) of your computer is Windows 10, right-click the VFDSoft icon to enter the **Property**. Then, click the **Compatibility** tab and select the **Run this program as an administrator** checkbox. (as shown in the red frames in the figure below)



3. Connecting the KPC-CCO1 to a computer



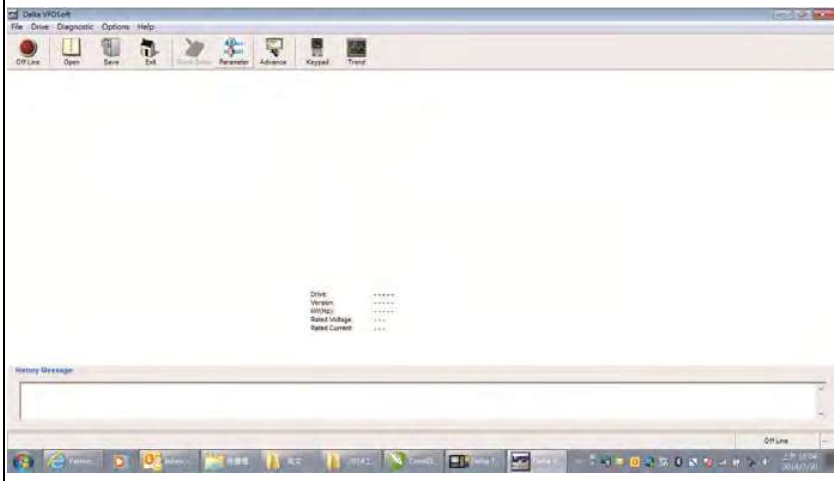
Select 2: VFDSoft, and then press ENTER.



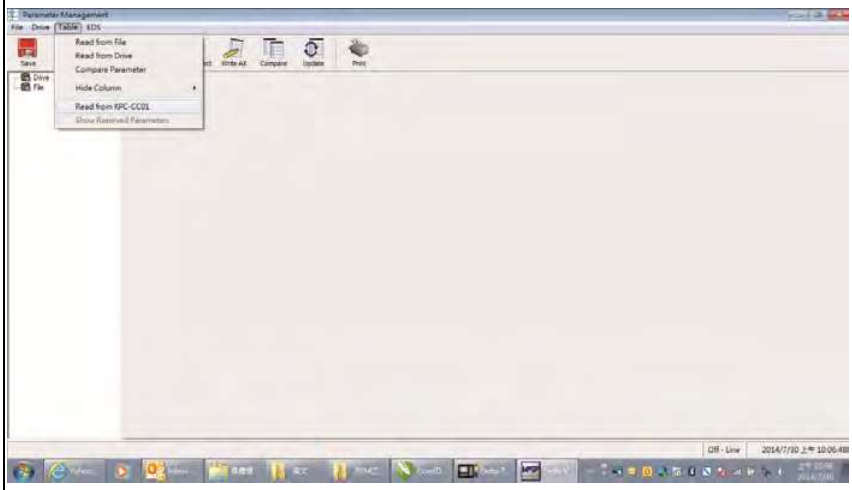
Press the Up / Down keys to select a parameter group to upload to VFDSoft.

Press ENTER to go to Waiting to connect to PC screen.

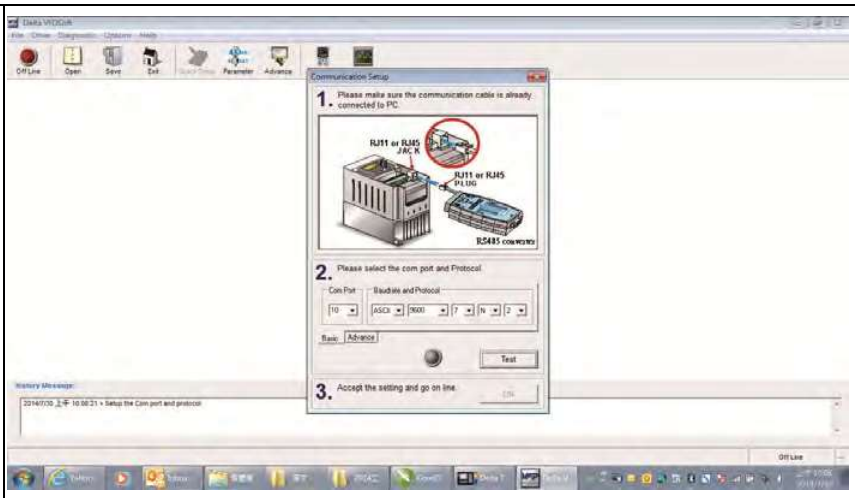
Open VFDSoft and click **Parameter** on the toolbar

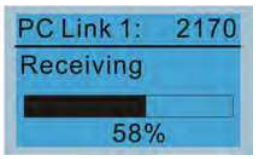


In Parameter Manager, from the **Table** menu, choose **Read from KPC-CC01**.

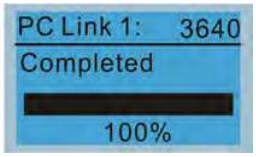


Choose the correct communication port and click **OK**.





Start to upload parameters to VFDSoft



Uploading parameter is completed

Before using the user-defined start-up screen and user-defined main screen, you must preset the start-up screen and the main screen as user-defined. If you do not download the user-defined screen to the KPC-CC01, the start-up screen and the main screen are blank.

16. Start Wizard (applicable for C2000 Plus firmware V3.05 and above)

16.1 New drive start-up setting process

When a new drive is powered on, it directly enters the Start Wizard. There are three modes in the start-up setting process: Start Wizard, Exit Wizard and Test Mode.

(1) Start Wizard:

- In Start Wizard, you can set drive's parameters such as Calendar, Maximum operation frequency and Maximum voltage…; refer to Table 1 for setting items and orders.
- The drive exits Start Wizard when you finish the complete setting process, and will not enter this process when rebooting the power.

(2) Exit Wizard:

- Exit the Start Wizard mode. The drive does not go to Start Wizard when rebooting the power.

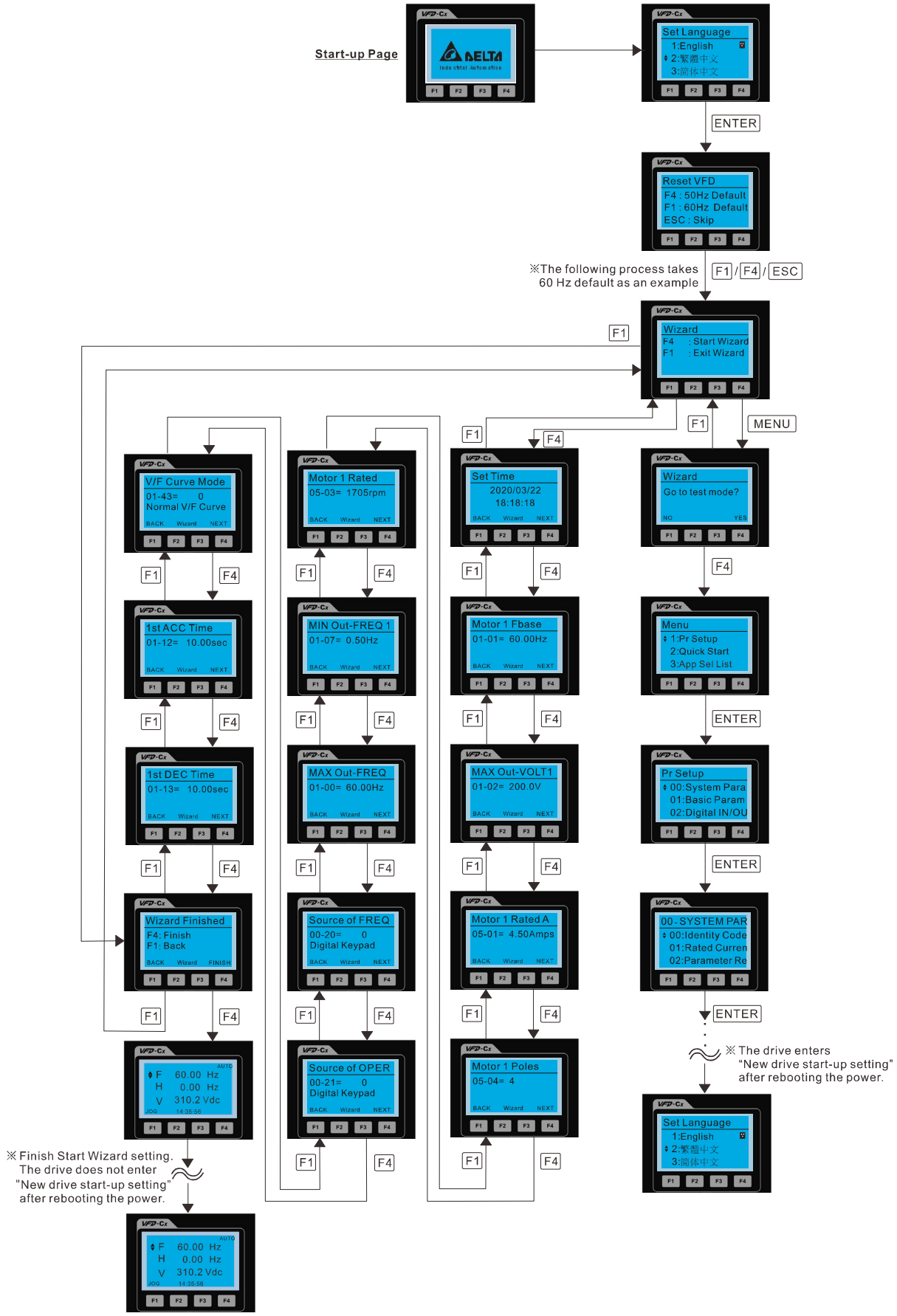
(3) Test Mode:

- This function is hidden to avoid misuse. Refer to the following flow chart to enter Test Mode.
- When the drive is in Test mode, it temporarily disables the Start Wizard and Exit Wizard mode.
- The Test Mode is designed for distributors / suppliers / clients to manage and operate the drive before shipping it out.
- If you enter Test Mode without exiting the Start Wizard process, the drive will begin with the new drive start-up process upon next power on.

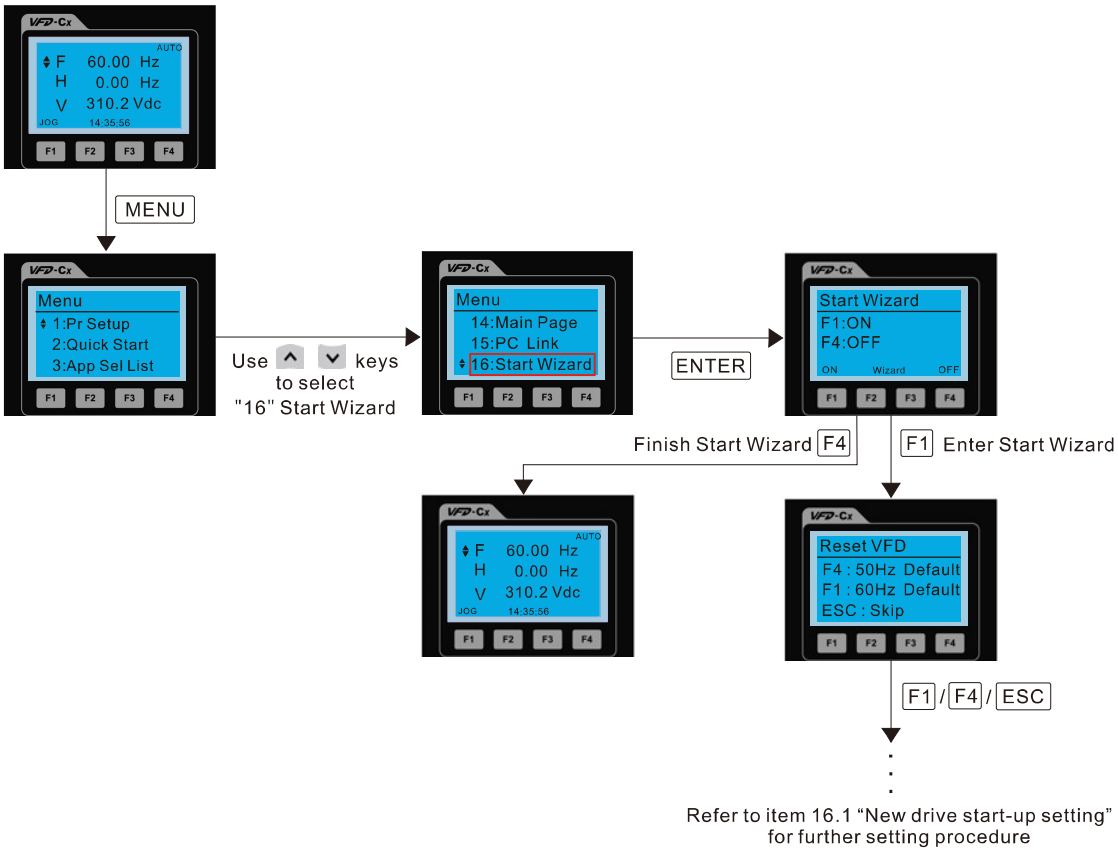
Setting Order	Description	Parameter
1	Calendar	N/A
2	Output frequency of motor 1	01-01
3	Output voltage of motor 1	01-02
4	Full-load current for induction motor 1 (A)	05-01
5	Number of poles for induction motor 1	05-04
6	Rated speed for induction motor 1 (rpm)	05-03
7	Minimum output frequency of motor 1	01-07
8	Maximum operation frequency	01-00
9	Master frequency command source (AUTO) / Source selection of the PID target	00-20
10	Operation command source (AUTO)	00-21
11	V/F curve selection	01-43
12	Acceleration time 1	01-12
13	Deceleration time 1	01-13

Table 1: Start Wizard setting items

Flow chart for the above setting process:



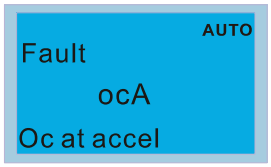
16.2 Re-start Start Wizard

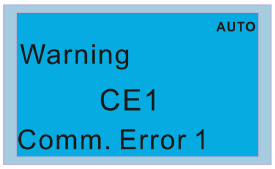


NOTE: The "16: Start Wizard" on the menu is to set whether the screen shows start wizard when powering on the drive.

Other displays

When a fault occurs, the screen display shows the fault or warning:





1. Press the STOP / RESET key to reset the fault code. If there is no response, contact your local distributor or return the unit to the factory. To view the fault DC bus voltage, output current and output voltage, press MENU and then choose 6: Fault Record.
2. After resetting, if the screen returns to the main page and shows no fault after you press ESC, the fault is cleared.
3. When the fault or warning message appears, the LED backlight blinks until you clear the fault or warning.

Optional accessory: RJ45 Extension Lead for Digital Keypad

Part No.	Description
CBC-K3FT	RJ45 extension lead, 3 feet (approximately 0.9 m)
CBC-K5FT	RJ45 extension lead, 5 feet (approximately 1.5 m)
CBC-K7FT	RJ45 extension lead, 7 feet (approximately 2.1 m)
CBC-K10FT	RJ45 extension lead, 10 feet (approximately 3 m)
CBC-K16FT	RJ45 extension lead, 16 feet (approximately 4.9 m)

Note: When you need communication cables, buy non-shielded, 24 AWG, four-wire twisted pair, 100 ohms communication cables.

10-3 TPEditor Installation Instruction

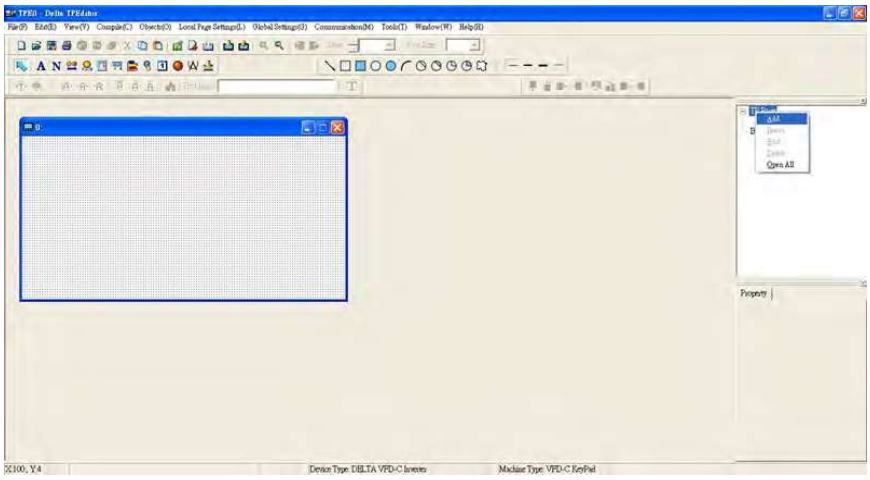
TPEditor can edit up to 256 HMI (Human-Machine Interface) pages with a total storage capacity of 256 KB. Each page can include 50 normal objects and 10 communication objects.

1) TPEditor: Setup & Basic Functions

1. Run TPEditor version 1.60 or above by double-clicking the program icon.

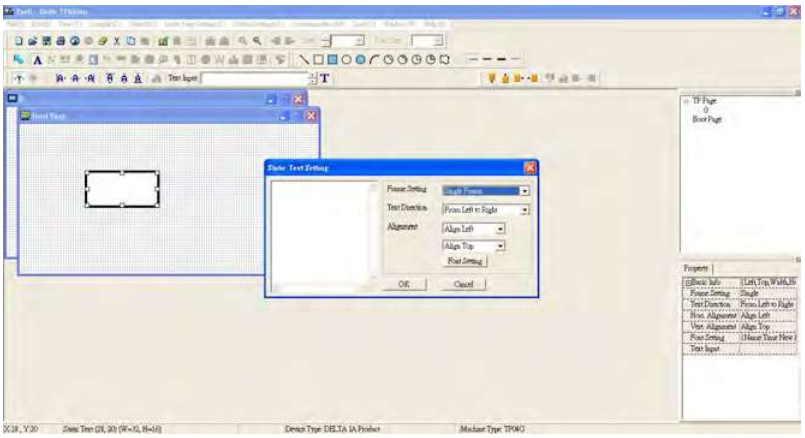
2. On the **File** menu, click **New**. In the New project dialog box, for **Set Device Type**, select **DELTA VFD-C Inverter**. For **TP Type**, select **VFD-C KeyPad**. For **File Name**, enter TPE0 and then click **OK**.

3. The editor displays the Design window. On the **Edit** menu, click **Add a New Page**. You can also right-click on the TP page in the upper right corner of the Design window and click **Add** to add one more page(s) to edit.

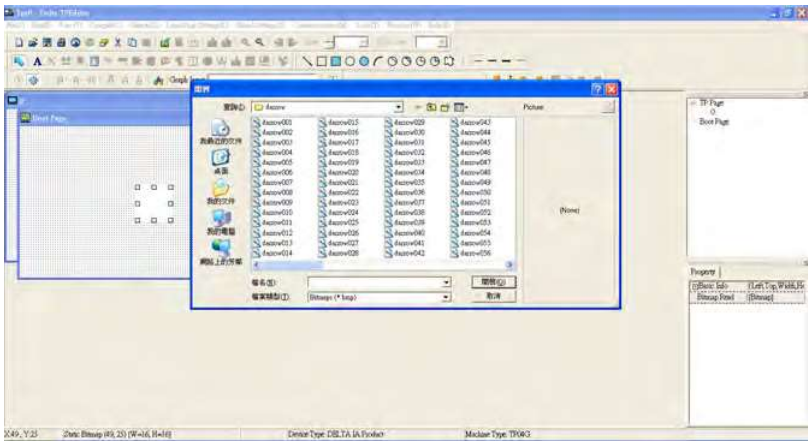


4. Edit the start-up screen.

5. Add static text. Open a blank page (step 3), then on the toolbar click  . Double-click the blank page to display the **Static Text Setting** dialog box, and then enter the static text.



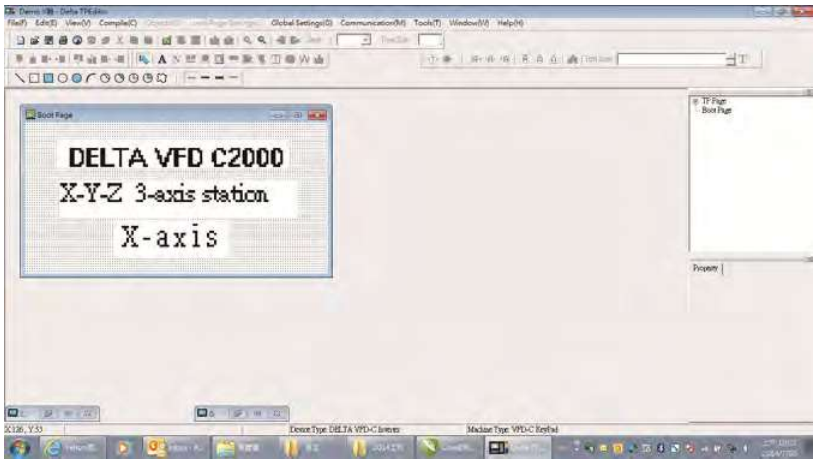
6. Add a static bitmap. Open a blank page (step 3), then on the toolbar, click  . Double-click the blank page to display the **Static Bitmap Setting** dialog box where you can choose the bitmap.



You can only use images in the BMP format. Click the image and then click Open to show the image in the page.

7. Add a geometric bitmap. There are 11 kinds of geometric bitmaps to choose. Open a new blank page (step 3), then on the toolbar click the geometric bitmap icon that you need  . In the page, drag the geometric bitmap and enlarge it to the size that you need.

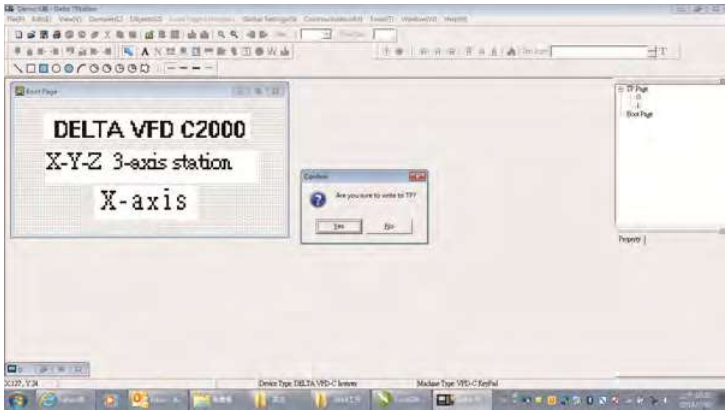
8. When you finish editing the start-up screen, on the **Communication** menu, click **Input User Defined Keypad Starting Screen.**



9. Download the new setting: On the **Tool** menu, click **Communication**. Set up the communication port and speed for the IFD6530. There are three speeds available: 9600 bps, 19200 bps, and 38400 bps.

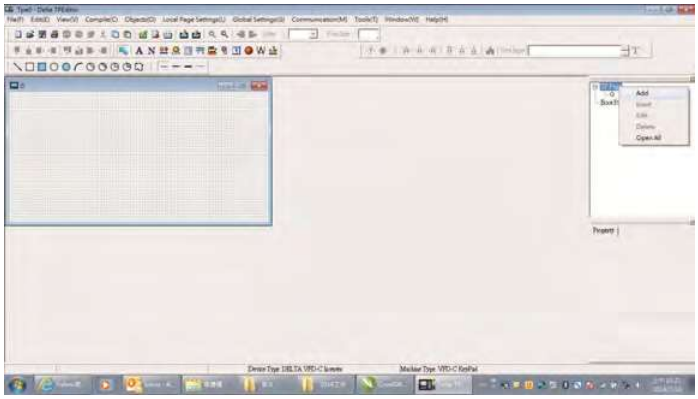
10. On the **Communication** menu, click **Input User Defined Keypad Starting Screen**.

11. The Editor displays a message asking you to confirm the new setting. Before you click **OK**, on the keypad, go to MENU, select PC LINK, press ENTER and then wait for few seconds. Then click **YES** in the confirmation dialog box to start downloading.



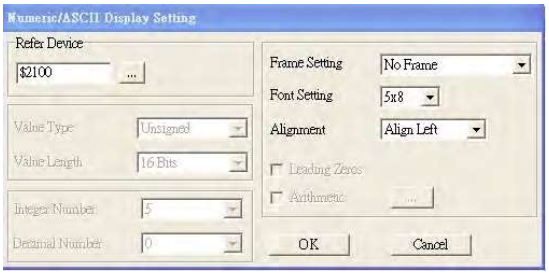
2) Edit the Main Page and Download to the Keypad

1. In the Editor, add a page to edit. On the **Edit** menu, click **Add a New Page**. You can also right-click on the TP page in the upper right corner of the Design window and click **Add** to add one more pages to edit. This keypad currently supports up to 256 pages.



2. In the bottom right-hand corner of the Editor, click the page number to edit, or on the **View** menu, click **HMI Page** to start editing the main page. As shown in the picture above, the following objects are available. From left to right they are: Static Text, ASCII Display, Static Bitmap, Scale, Bar Graph, Button, Clock Display, Multi-state bit map, Units, Numeric Input, the 11 geometric bitmaps, and lines of different widths. Use the same steps to add Static Text, Static Bitmap, and geometric bitmaps as for the start-up page.

3. Add a numeric/ASCII display. On the toolbar, click the **Numeric/ASCII** button. In the page, double-click the object to specify the **Refer Device**, **Frame Setting**, **Font Setting** and **Alignment**.



Click **[…]**. In the **Refer Device** dialog box, choose the VFD communication port that you need. If you want to read the output frequency (H), set the **Absolute Addr.** to 2202. For other values, refer to the ACMD Modbus Comm Address List (see Pr.09-04 in Chapter 12 Group 09 Communication Parameters).

4. Scale Setting. On the toolbar, click  to add a scale. You can also edit the Scale Setting in the Property Window on the right-hand side of your computer screen.

a. **Scale Position**: specifies where to place the scale.

b. **Scale Side**: specifies whether the scale is numbered from smaller numbers to larger numbers or from larger to smaller.

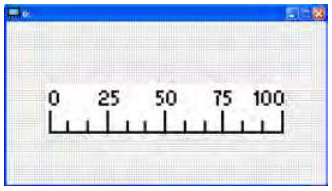
c. **Font Setting**: specifies the font.

d. **Value Length**: specifies 16 bits or 32 bits.

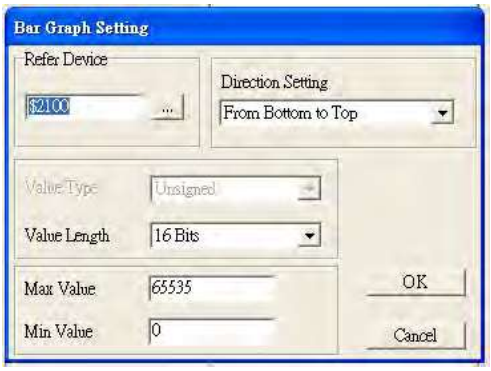
e. **Main Scale & Sub-Scale**: divides the whole scale into equal parts; enter the numbers for the main scale and sub-scale.

f. **Max Value & Min Value**: specifies the numbers on the two ends of the scale. They can be negative numbers, but the maximum and minimum values are limited by the **Value Length** setting. For example, when **Value Length** is **hexadecimal** (**16 bits**), the maximum and the minimum value cannot be entered as -40000.

Clicking **OK** creates a scale as in the picture below.



5. Bar Graph setting. On the toolbar, click  to add a bar graph.

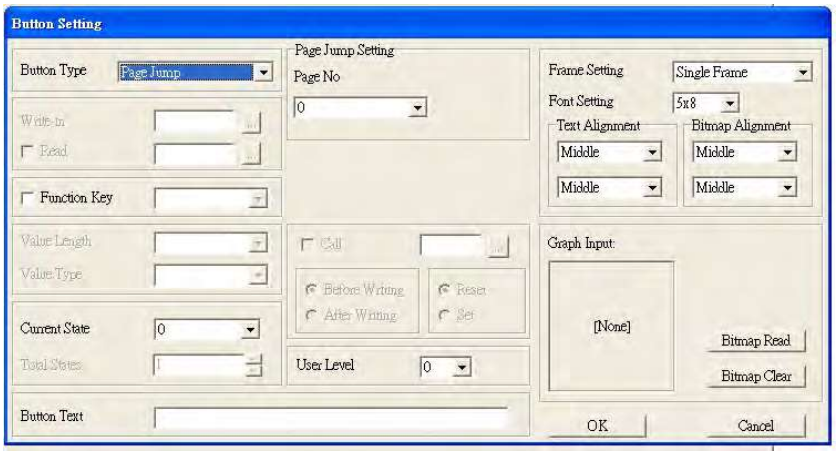


a. **Refer Device**: specifies the VFD communication port.

b. **Direction Setting**: specifies the direction: **From Bottom to Top**, **From Top to Bottom**, **From Left to Right** or **From Right to Left**.

c. **Max Value** and **Min Value**: specifies the maximum value and minimum value. A value smaller than or equal to the minimum value causes the bar graph to be blank (0). A value is bigger or equal to the maximum value causes the bar graph is full (100%). A value between the minimum and maximum values causes the bar graph to be filled proportionally.

6. Button : on the toolbar, click . Currently this function only allows the keypad to switch pages; other functions are not yet available (including text input and insert image). In the blank page, double-click to open the Button Setting dialog box.

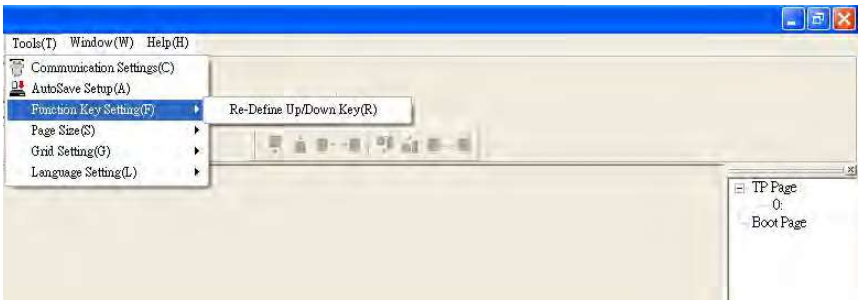


Button Type: specifies the button's functions.

Page Jump and **Constant Setting** are the only functions currently supported.

A. Page Jump Setting

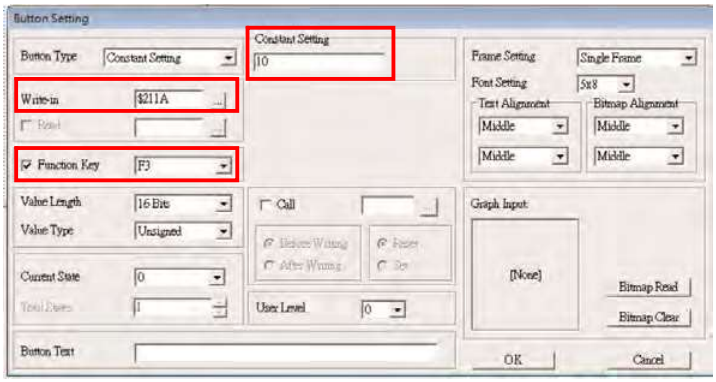
- **Page Jump Setting**: in the **Button Type** list, choose **Page Jump** to show the **Page Jump Setting**.
- **Function Key**: specifies the functions for the following keys on the KPC-CC01 keypad: F1, F2, F3, F4, Up, Down, Left and Right. Note that the Up and Down keys are locked by TPEditor. You cannot program these two keys. If you want to program Up and Down keys, on the **Tool** menu, click **Function Key Setting**, and then click **Re-Define Up/Down Key**.



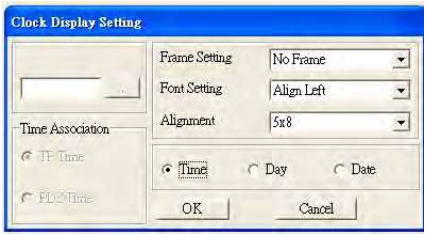
- **Button Text**: specifies the text that appears on a button. For example, when you enter Next Page for the button text, that text appears on the button.

B. Constant setting

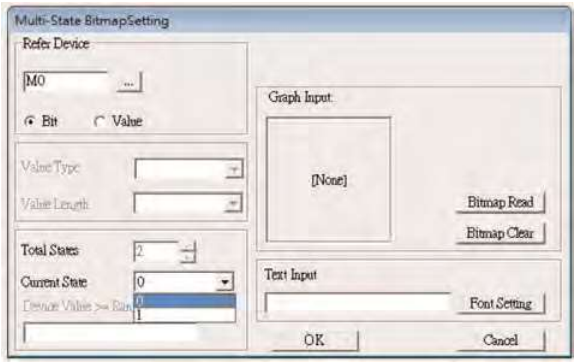
This function specifies the memory address' values for the VFD or PLC. When you press the **Function Key**, it writes a value to the memory address specified by the value for **Constant Setting**. You can use this function to initialize a variable.



7. **Clock Display Setting**: on the toolbar, click  . You can display the time, day, or date on the keypad. Open a new page and click once in that window to add a clock display.
   Choose to display **Time**, **Day**, or **Date** on the keypad. To adjust time, go to #8 on the keypad's menu. You can also specify the **Frame Setting**, **Font Setting**, and **Alignment**.



8. Multi-state bitmap: on the toolbar, click  . Open a new page and click once in that window to add a Multi-state bitmap. This object reads a bit's property value from the PLC. It defines the image or text that appears when this bit is 0 or 1. Set the initial status (**Current State**) to be 0 or 1 to define the displayed image or text.



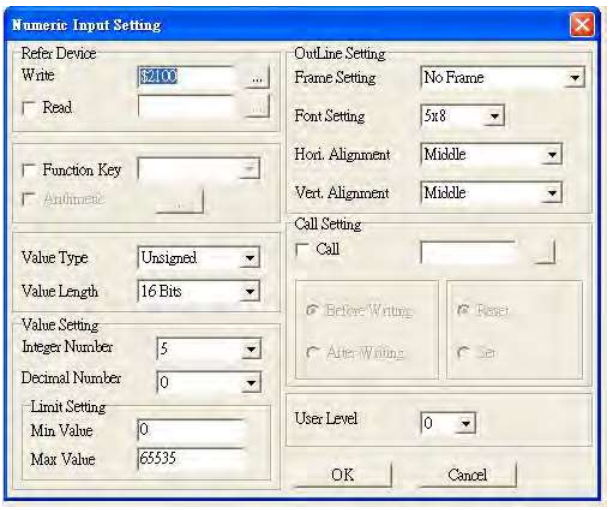
9. Unit Measurement: on the toolbar, click  .

   Open a new blank page, and double-click on that window to display the **Units Setting** dialog box. Choose the Metrology Type and the Unit Name. For Metrology, the choices are Length, Square Measure, Volume/Solid Measure, Weight, Speed, Time, and Temperature. The unit name changes automatically when you change metrology type.

10. Numeric Input Setting: on the toolbar, click 

    This object enables you to provide parameters or communication ports (0x22xx) and to input numbers.

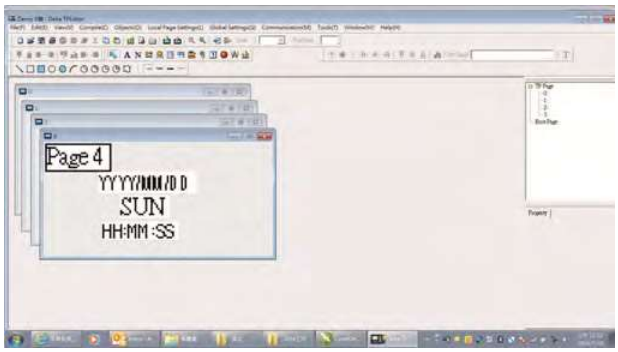
    Open a new file and double click on that window to display the **Numeric Input Setting** dialog box.

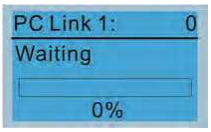


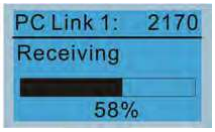
   a. **Refer Device**: specifies the **Write** and the **Read** values. Enter the numbers to display and the corresponding parameter and communication port numbers. For example, enter 012C to Read and Write Parameter Pr.01-44.
   b. **OutLine Setting**: specifies the **Frame Setting**, **Font Setting**, **Hori. Alignment**, and **Vert. Alignment** for the outline.
   c. **Function Key**: specifies the function key to program on the keypad in the **Function Key** box. The corresponding key on the keypad starts to blink. Press ENTER to confirm the setting.
   d. **Value Type** and **Value Length**: specify the range of the **Min Value** and **Max Value** for the **Limit Setting**. Note that the corresponding supporting values for MS300 must be 16 bits. 32-bit values are not supported.
   e. **Value Setting**: automatically set by the keypad itself.
   f. **Limit Setting**: specifies the range for the numeric input here.

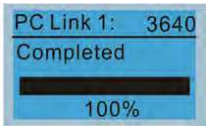
For example, if you set **Function Key** to **F1**, **Min Value** to 0 and **Max Value** to 4, when you press F1 on the keypad, then you can press Up/Down on the keypad to increase or decrease the value. Press ENTER on the keypad to confirm your setting. You can also view the parameter table 01-44 to verify if you correctly entered the value.

11. Download TP Page: Press Up / Down on the keypad to select #13 PC Link.
    Then press ENTER on the keypad. The screen displays “Waiting”. In TPEditor, choose a page that you have created, and then on the **Communication** menu click **Write to TP** to start downloading the page to the keypad.
    When you see “Completed” on the keypad screen, the download is finished. You can then press ESC on the keypad to go back to the menu screen.

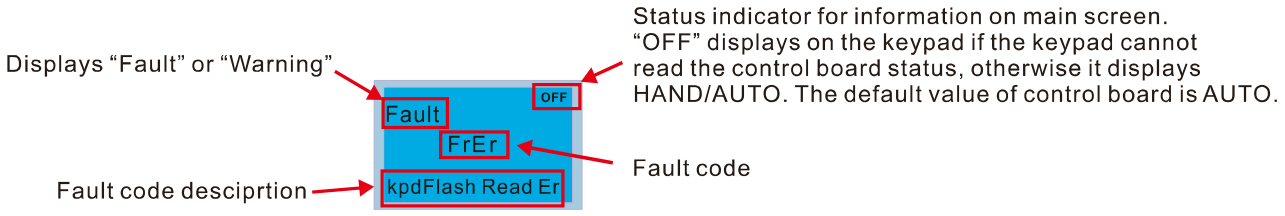




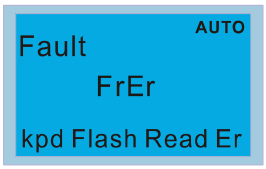
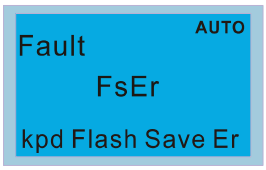
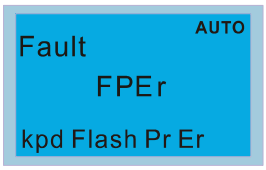
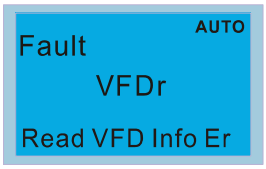
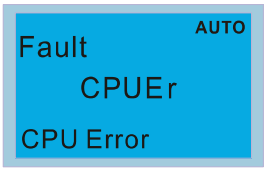




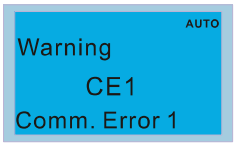
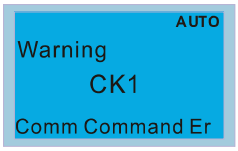
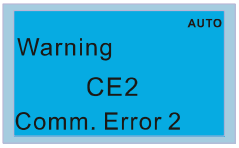
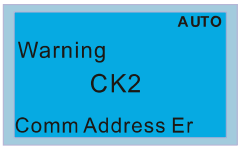
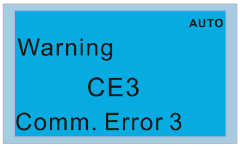
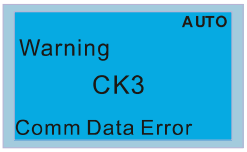
10-4 Digital Keypad KPC-CC01 Fault Codes and Descriptions

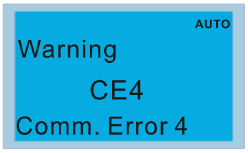
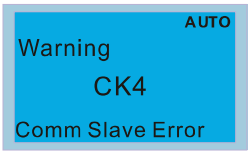
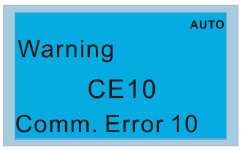
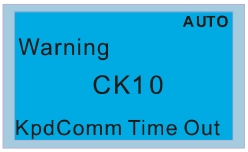
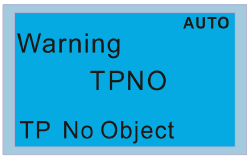


Fault Codes

LCD Display *	Fault Name	Description	Corrective Actions
	Flash memory read error (FrEr)	Keypad flash memory read error	Error in the keypad’s flash memory. 1. Press RESET to clear the errors. 2. Check for any problem on Flash IC. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your authorized local dealer for assistance.
	Flash memory save error (FsEr)	Keypad flash memory save error	Error in the keypad’s flash memory. 1. Press RESET to clear the errors. 2. Check for any problem on Flash IC. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your authorized local dealer for assistance.
	Flash memory parameter error (FPEr)	Keypad flash memory parameter error	Error in the default parameters. It might be caused by a firmware update. 1. Press RESET to clear the errors. 2. Check for any problem on Flash IC. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your authorized local dealer for assistance.
	Reading AC motor drive data error (VFDr)	Keypad error when reading AC motor drive data	Keypad cannot read any data sent from the VFD. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET to clear the errors. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your authorized local dealer for assistance.
	CPU error (CPUEr)	Keypad CPU error	A serious error in the keypad’s CPU. 1. Check for any problem on CPU clock. 2. Check for any problem on Flash IC. 3. Check for any problem on RTC IC. 4. Verify that the communication quality of the RS-485 cable is good. 5. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your authorized local dealer for assistance.

Warning Codes

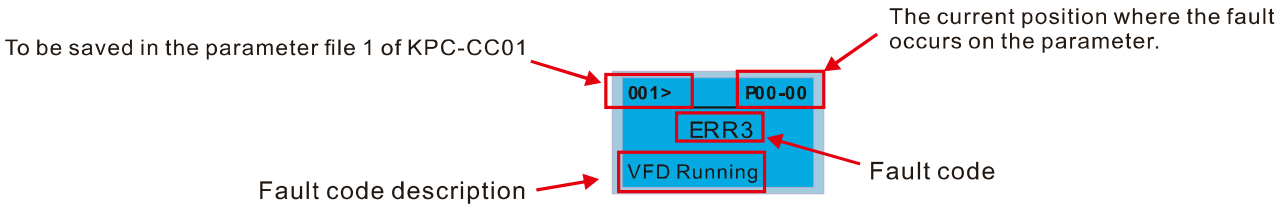
LCD Display *	Warning Name	Description	Corrective Actions
	Commuication error 1 (CE1)	RS-485 Modbus illegal function code	Motor drive does not accept the communication command sent from the keypad. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET on the keypad to clear errors. If none of the above solutions works, contact your local authorized dealer for assistance.
	Communication command error 1 (CK1)	Keypad communication data, illegal function code (Keypad auto-detect this error and display it)	Keypad does not accept the motor drive's communication command. 1. Remove the keypad and reconnect it. 2. Verify if the Baud rate = 19200 bps, and the Format = RTU8, N, 2 3. Verify if the keypad is properly connected to the motor drive on the communication contact by a communication cable such as RJ45. If none of the above solution works, contact your local authorized dealer.
	Communication error 2 (CE2)	RS-485 Modbus illegal data address	Motor drive does not accept the keypad's communication address. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET to clear the errors. If none of the above solutions works, contact your local authorized dealer for assistance.
	Communication address error (CK2)	Keypad communication data, illegal data address (Keypad auto-detect this error and display it)	Keypad does not accept the motor drive's communication command. 1. Remove the keypad and reconnect it. 2. Verify if the Baud rate = 19200 bps, and the Format = RTU8, N, 2 3. Verify if the keypad is properly connected to the motor drive on the communication contact by a communication cable such as RJ45. If none of the above solution works, contact your local authorized dealer.
	Communication error 3 (CE3)	RS-485 Modbus illegal data value	Motor drive does not accept the communication data sent from the keypad. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET to clear the errors. If none of the above solutions works, contact your local authorized dealer for assistance.
	Communication data error (CK3)	Keypad communication data, illegal data value (Keypad auto-detect this error and display it)	Keypad does not accept the motor drive's communication command. 1. Remove the keypad and reconnect it. 2. Verify if the Baud rate = 19200 bps, and the Format = RTU8, N, 2 3. Verify if the keypad is properly connected to the motor drive on the communication contact by a communication cable such as RJ45. If none of the above solution works, contact your local authorized dealer.

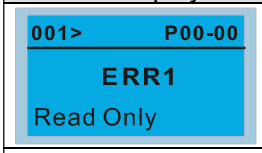
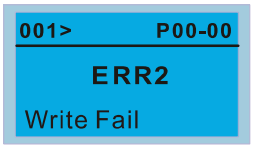
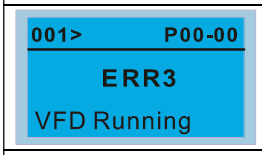
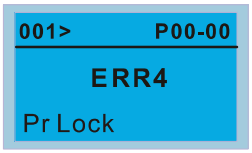
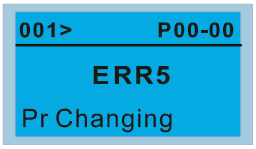
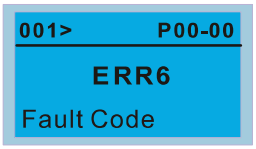
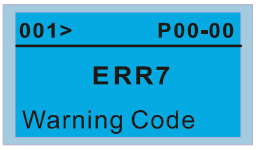
LCD Display *	Warning Name	Description	Corrective Actions
	Communication error 4 (CE4)	RS-485 Modbus data is written to read-only address	Motor drive cannot process the communication command sent from the keypad. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET to clear the errors. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your local authorized dealer for assistance.
	Communication slave error (CK4)	Keypad communication data is written to read-only address (Keypad auto-detect this error and display it)	Keypad does not accept the motor drive's communication command. 1. Remove the keypad and reconnect it. 2. Verify if the Baud rate = 19200 bps, and the Format = RTU8, N, 2 3. Verify if the keypad is properly connected to the motor drive on the communication contact by a communication cable such as RJ45. If none of the above solution works, contact your local authorized dealer.
	Communication error 10 (CE10)	RS-485 Modbus transmission time-Out	Motor drive does not respond to the communication command sent from the keypad. 1. Verify that the keypad is properly connected to the motor drive by a communication cable such as RJ45. 2. Press RESET to clear the errors. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your local authorized dealer for assistance.
	Keypad communication time out (CK10)	Keypad communication data, transmission time-out (Keypad auto-detect this error and display it).	Keypad does not accept the motor drive's communication command. 1. Remove the keypad and reconnect it. 2. Verify if the Baud rate = 19200 bps, and the Format = RTU8, N, 2 3. Verify if the keypad is properly connected to the motor drive on the communication contact by a communication cable such as RJ45. If none of the above solution works, contact your local authorized dealer.
	Keypad communication time out (CK10)	Object not supported by TPEditor	Keypad's TPEditor uses an unsupported object. 1. Verify that the TPEditor is not using an unsupported object or setting. Delete unsupported objects and unsupported settings. 2. Re-edit the object in the TPEditor, and then download it to the keypad. 3. Verify that the motor drive supports the TP functions. If the drive does not support TP function, the main page displays Default. If none of the above solutions works, contact your local authorized dealer for assistance.

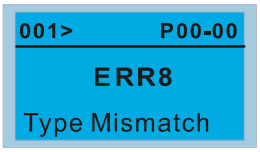
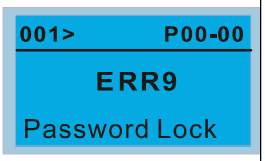
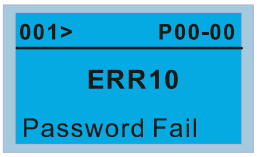
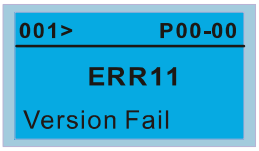
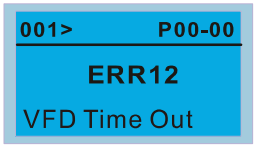
NOTE The warning code CExx only occurs when the communication problem is between the drive and the keypad. It has nothing to do with the drive and other devices. Note the warning code description to find the cause of the error if CExx appears.

File Copy Setting Fault Description:

These faults occur when KPC-CC01 cannot perform the command after clicking the ENTER key in the copy function.



LCD Display *	Fault Name	Description	Corrective Actions
	Read only (ERR1)	Parameter and file are read-only	The parameter / file is read-only and cannot be written to. 1. Verify the specification in the user manual. If this solution does not work, contact your local authorized dealer for assistance.
	Write in error (ERR2)	Fail to write parameter and file	An error occurred while writing to a parameter / file. 1. Check for any problem on the Flash IC. 2. Shut down the system, wait for ten minutes, and then restart the system. If this solution does not work, contact your local authorized dealer for assistance.
	Drive operating (ERR3)	AC motor drive is in operating status	A setting cannot be changed while the motor drive is in operation. 1. Verify that the drive is not in operation. If this solution does not work, contact your local authorized dealer for assistance.
	Parameter locked (ERR4)	AC motor drive parameter is locked	A setting cannot be changed because a parameter is locked. 1. Check if the parameter is locked. If it is locked, unlock it and try to set the parameter again. If this solution does not work, contact your local authorized dealer for assistance.
	Parameter changing (ERR5)	AC motor drive parameter is changing	A setting cannot be changed because a parameter is being modified. 1. Check if the parameter is being modified. If it is not being modified, try to change that parameter again. If this solution does not work, contact your local authorized dealer for assistance.
	Fault code (ERR6)	Fault code is not cleared	A setting cannot be changed because an error has occurred in the motor drive. 1. Check if any error occurred in the motor drive. If there is no error, try to change the setting again. If this solution does not work, contact your local authorized dealer for assistance.
	Warning code (ERR7)	Warning code is not cleared	A setting cannot be changed because of a warning message given to the motor drive. 1. Check if there is a warning message given to the motor drive. If this solution does not work, contact your local authorized dealer for assistance.

LCD Display *	Fault Name	Description	Corrective Actions
	File type mismatch (ERR8)	File type mismatch	Data to be copied are not the correct type, so the setting cannot be changed. 1. Check if the products' serial numbers to be copied are in the same category. If they are in the same category, try to copy the setting again. If this solution does not work, contact your local authorized dealer for assistance.
	Password locked (ERR9)	File is locked with password	A setting cannot be changed because some data are locked. 1. Check if the data are unlocked or able to be unlocked. If the data are unlocked, try to change the setting again. 2. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your local authorized dealer for assistance.
	Password fail (ERR10)	File password mismatch	A setting cannot be changed because the password is incorrect. 1. Check if the password is correct. If the password is correct, try to change the setting again. 2. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your local authorized dealer for assistance.
	Version fail (ERR11)	File version mismatch	A setting cannot be changed because the version of the data is incorrect. 1. Check if the version of the data matches the motor drive. If it matches, try to change the setting again. If none of the above solutions works, contact your local authorized dealer for assistance.
	VFD Time out (ERR12)	AC motor drive copy function time-out	A setting cannot be changed because the data copying time-out expired. 1. Try copying the data again. 2. Check if copying data is authorized. If it is authorized, try to copy the data again. 3. Shut down the system, wait for ten minutes, and then restart the system. If none of the above solutions works, contact your local authorized dealer for assistance.

※ The content in this section only applies to the KPC-CC01 keypad V1.01 and later versions.

10-5 Unsupported Functions when using TPEditor with the KPC-CC01

1. **Local Page Setting** and **Global Setting** functions are not supported.

2. In the **Communication** menu, **Read from TP** function is not supported.

3. In the **RTC Display Setting**, you cannot change the **Refer Device**.