

Comfort, the Intelligent Home System

KP04 LCD
Keypad
Installation
Manual

KP04 LCD Keypad Installation Manual

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Introduction



The KP04 Keypad incorporates a 2 lines x 16 character Liquid Crystal Display (LCD), enabling Comfort messages to be displayed. This allows users to see alarms, zones and warning messages without the need to sign-in to listen to the voice menu. The KP04, like a KP01/02 keypad also has a comprehensive voice menu. A key difference between KP04 and non-LCD versions is that the Event Log is displayed as well as announced. The words in the LCD keypad can also be customised according to the wordlist and vocabulary in Comfort using the VoiceProc Software. The KP04 Keypad also receives Infrared codes from the RC01 handheld remote control or a universal remote control such as the Philips Pronto®, allowing responses to be activated to control home appliances or act as a hand-held keypad in the same way as the KP02. A feature of the KP04 is its real time display of active zones and alarms. Hence a trouble alarm like "Phone Trouble" will be displayed on the LCD. For Communications Failures, the name of the device will be displayed e.g. "UCM 2", "Keypad 3", "Door Station 1", "Slave 1" instead of the more cryptic Communications Failure ID number.

Note that from Comfort II firmware version 5.039 onwards, the Event Log will be both displayed and read out from the KP04.

Upgrading from KP01 and KP02

The KP04 can replace KP01s and KP02s in existing installations. Mounting holes are identical to the KP01/KP02, and the same wiring from Comfort to

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the Keypads can be used. However, each wire pair (KA/KB, MIC/Voice, 12V/COM) is reversed when connecting to the terminal blocks. This change was decided to standardize the connections for all Comfort terminals (Main, UCM, Slave Keypads etc).

For Comfort I, firmware should be Outside (PRO) or Action (ULTRA) 4.226 or above. The firmware can be upgraded by purchasing the IC01-OUT or IC01-ACT and replacing the U1 IC on Comfort. The KP04 cannot be used with Comfort ENTRY. All Comfort II firmware versions are compatible with KP04

A notable difference between the KP04 and KP01/KP02 is the volume control increases the volume in the downward position, corresponding to the normal direction of radios and other audio equipment.

Specifications

- Dimensions: 89 (W) x 160 (H) x 31 (D) mm
- Weight: 177 g
- Power Supply: 12V DC from Comfort System
- Current Consumption: 50 mA idle (without voice)
- Comfort IR codes received: 0 to 127

System Requirements

- Comfort system with firmware version “Outside or Action 4.226” and above. Comfort ENTRY systems cannot be used with the KP04
- UCM01 with firmware version “UCM5.72” and above for downloading programmed vocabulary.

Contents

The KP04 LCD Keypad package consists of the following*:

- KP04 Keypad
- KP04 Manual (this booklet)
- 2 wall plugs and screws for mounting.
- 3 x 2 way removable terminal blocks

*Subject to changes without prior notice

Set-Up

Connections

- JP1 – 12V/COM connector. Connected to 12V/COM on Comfort.
- JP2 – KA/KB connector. Connected to KA/KB on Comfort.
- JP3 – VOICE/MIC connector. Connected to VOICE/MIC on Comfort.

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Cables

It is recommended that shielded twisted 4 pair cable be used for the wiring between Comfort and the keypads to avoid interference from mains wiring and electrical appliances from causing noise on the microphone and keypad wires.

Jumper Settings

- JP4 – 3 pin header for Backlight selection. “Normal” position for backlight on when key is pressed, Entry Alert or Alarm. “On” position is used to switch Backlight permanently on. The default setting is “Normal”.
- JP6 – Keypad key Beep volume. It is shorted for louder beep volume. It is not shorted by default (i.e. soft).
- JP7 – Tamper Shunt. It is shorted to disable tamper switch. Shorted by default.
- SW1 – set according to the ID of the keypad (see “Keypad ID Switch” settings).

Keypad ID Switch

Comfort is able to support up to 8 keypads (KP01/KP02/KP03/KP04) in any combination. SW1 is a set of 4 headers which is used to determine the ID, in accordance to the table below:

Table 1: ID Settings

ID	SW1-A	SW1-B	SW1-C
1	Short	Short	Short
2	Open	Short	Short
3	Short	Open	Short
4	Open	Open	Short
5	Short	Short	Open
6	Open	Short	Open
7	Short	Open	Open
8	Open	Open	Open

* SW1-D should be shorted as it is planned for future developments.

In the Configurator software, the number of keypads must be set to equal the maximum (ID) number of keypads in the system.

LED Indicators

Off (Green)	
Steady	Security off mode, all conditions are normal (no trouble conditions present).
Blinking	Trouble condition present, e.g. line cut, communication failure. The Trouble Condition is displayed on the LCD.

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Arm (Red)	
Steady	System in arm mode, all conditions normal (no alarm conditions present). The security mode (Away, Night, Day, Vacation) is displayed.
Blinking	Alarm / alert condition.
AC (Red)	
Steady	Mains Power failure.
Blinking	Standby battery voltage is low. The battery should be replaced.
Msg (Green)	
Steady	New memo from user. Press # to hear who the message is for. Sign in on keypad with user code to hear the message
Blinking	New memo from user. Press # to hear who the message is for. Sign in on keypad with user code to hear the message
Mic (Red)	
Steady	Microphone is on for Recording or Intercom
Blinking	N.A.

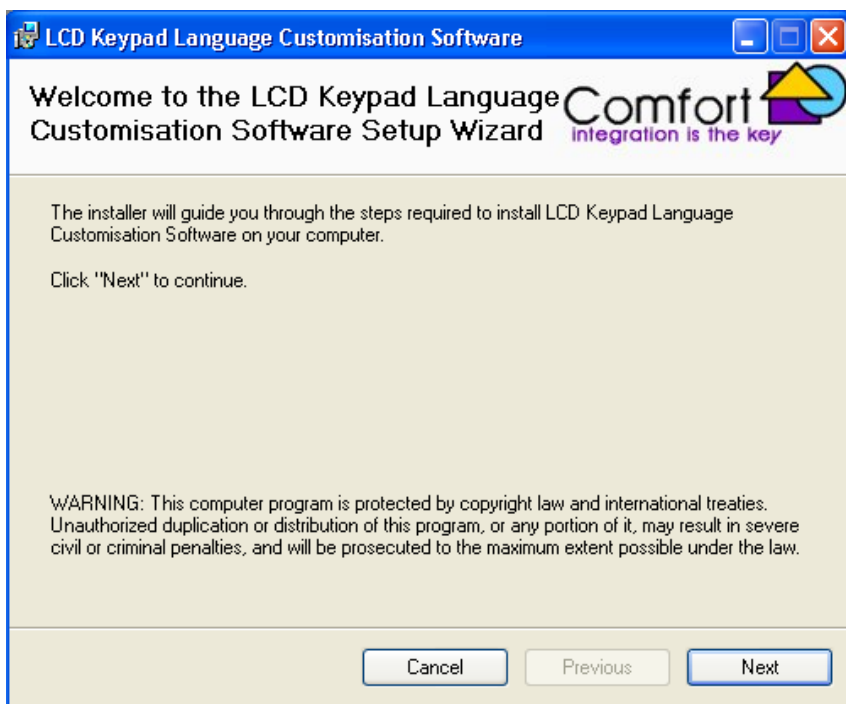
Installation

The keypad should be installed in an indoor location. It should not be located outside the premises for security reasons.

1. Open the Keypad housing by unscrewing the screw at the base.
2. Mount the back housing on the wall using the screws supplied. The KP04 can replace the KP01 or KP02 with little difficulty as the position and size of the mounting holes are identical to that of the older products.
3. Connect the 6 wires from the terminal blocks (JP1, JP2 and JP3) on the Keypad to the Comfort PCB according to the signal name. Note that the 12V should be connected to the 12V terminal on Comfort and not the S12V terminal.
4. **If you are replacing an existing KP01/KP02, note that the pairs of wires KA/KB, 12V/COM, Mic/Voice are reversed on the connectors. This is to comply with the orientation used in all other Comfort modules, e.g. UCM, Comfort, which is different from that used in the KP01/KP02**
5. If more than one Keypad/Door Station is used, connect their 12V and ground wires back to Comfort control panel individually. **Do not connect them in series as this may result in excessive voltage drop along the cable.**
6. Set the shunts for each of the ID of the keypad correctly (SW1). They must be numbered consecutively, i.e. if there are 2 Keypads, one should be set to ID 1, and the other as ID 2. **The IDs for the Keypads and Door Stations are independent.**
7. Set the correct number of Keypads either using Configurator (or using the keypad via location 1675). The default is set to 1 keypad. Reset Comfort after changing the value.

Vocabulary Programming

This section applies to Comfort I systems only. The LCD keypad displays words on the LCD based on the wordlist used in Comfort. For each language and vocabulary the words in the wordlist may be different. The LCD Keypad Language Customisation software allows the keypad to know which words to display for the word numbers it receives from Comfort. Normally this will be done at the factory or by the Distributor for each country. The procedure can also be performed when the Comfort vocabulary has been changed due to a firmware upgrade, i.e. new words have been added to the wordlist, or the alarm sentences have been changed, or another language is to be used. It is NOT necessary for the normal installation of KP04. The KP04 currently supports English and European language text (A-Z, a-z and 0-9). The LCDKP Language Customisation Software is used to customise the words in the KP04. This program can be downloaded from <http://www.cytech.biz/software.html>.



The above screen should be seen when running the installation for the LCDKP Language Customisation Software. Follow the instructions on the screen to complete setup.

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Upon running the LCDKP Language Customisation Software, a set of default system files are loaded under a certain template, which can be seen on the top right hand corner of the screen. The system files loaded can be seen under 'Edit → Options → System Files'. Different wordlists will require different system files, so select the relevant files or template to suit your needs.

Tabs

There are a total of 4 tabs in the main window of the LCDKP Language Customisation Software, namely:

- Event Log Sentences
- Miscellaneous Sentences
- Special Words
- Settings

Event Log Sentences

Event#	Event	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7
0								
1								
2	Phone Dial	Phone	Dial					
3	Sign-in OK	Sign-in	OK					
4								
5								
6	Event Six	Event	Six					
7	Event Seven	Event	Seven					
8	Zone Restore	Zone	Restore					
9	System Reset	System	Reset					
10	Zone Trouble	Zone	Trouble					
11	Zone Bypass	Zone	Bypass					
12	Zone Bypass Off	Zone	Bypass	Off				
13	Phone Sign-in	Phone	Sign-in					
14	Change Time	Change	Time					
15	Communication Failure	Communication	Failure					

By clicking on the Event Log Sentences tab, the above screen is displayed. This screen allows the words in the displayed event log to be customised, in accordance to a fixed list. Clicking on any field will result in a drop down list to allow for the selection of words. The words chosen can be up to 7 words long, but only the first 32 characters are displayed.

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Miscellaneous Sentences

LCD Keypad Language Customisation Software v1.2.0 - C:\Program Files\Cytech\LCDKP\defStdR20.lct

File Edit Transfer Help

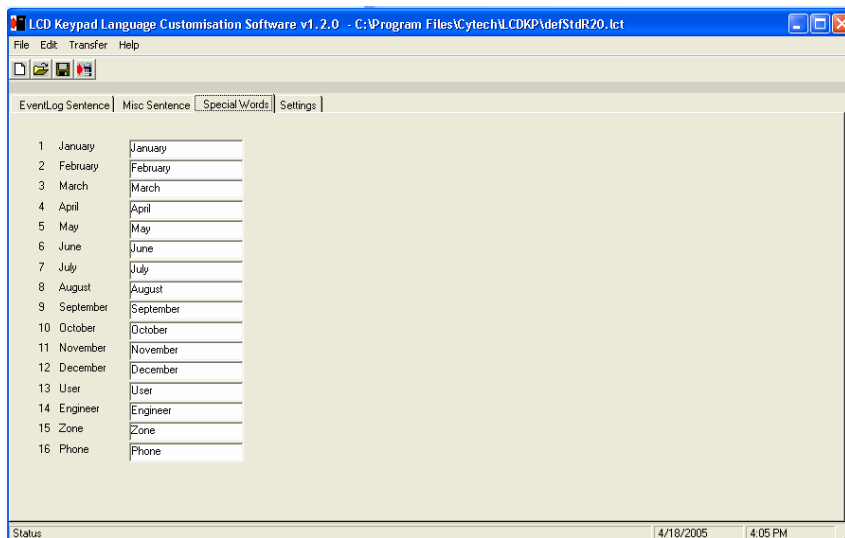
EventLog Sentence **Misc Sentence** Special Words Settings

1	Main Board	Main Board	2	UCM	UCM
3	Slave Board	Slave Board	4	Door Station	Door Station
5	Keypad	Keypad	6	SCS/RIO	SCS/RIO
7			8		
9	Keypad	Keypad	10	Response	Response
11	Phone	Phone	12	Pager	Pager
13	CMS	CMS	14	SMS	SMS
15			16		
17	Arming...	Arming...	18	Ready to Arm...	Ready to Arm...
19			20		
21			22		
23			24		
25			26		
27			28		
29			30		
31			32		

Status | 4/18/2005 | 4:04 PM

The above screen is displayed when the Miscellaneous Sentence tab is displayed. Here, unlike the Event Log Sentences tab, the fields can be edited without the restriction of a fixed list. However, the LCD Keypad only supports up to 32 characters, so anything after the 32nd character is discarded.

Special Words



This screen allows the modification of certain special words, such as the month name. This is, however, similar to the Event Log Sentences, which limits the choice of words to that of a fixed wordlist.

Settings

This sets the refresh rate for the LCD in units of 100ms. The default value is 20 (i.e. 2 seconds).

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Menu Bar

The menu bar allows the loading and saving of files, as well as to download the program to the LCD Keypad.

File

This menu enables the saving and loading of files. The most recent 4 files are also reflected in this menu.

Item	Description
New	Opens a template file.
Open	Opens an existing file.
Save	Saves the current file.
Save As	Saves the current file under another file name.
Exit	Exits the LCDKP Keypad Language Customisation Software program.

Edit

This menu allows ease of editing, with the various editing functions, as well as allows the selection of relevant system files.

	Description
Cut	Cuts the current field. Not applicable for the selectable fields.
Copy	Copies the current field. Not applicable for the selectable fields.
Paste	Pastes the cut/copied entries into the current field. Not applicable for the selectable fields.
Options	Allows the setting of the various system files. These include the selection of the default template, as well as the various system files, which may differ for different vocabulary. The default template is the template that will be loaded initially when the program is run.

Transfer

This menu allows the downloading of the program to the LCD Keypad.

	Description
Download	Downloads the current configuration to the KP04.

Help

This menu provides on-site assistance to installers.

	Description
Contents	Displays the contents in the help file.
Search For Help On	Allows the installer to search the help database to locate information readily.
About	Displays version number and information.

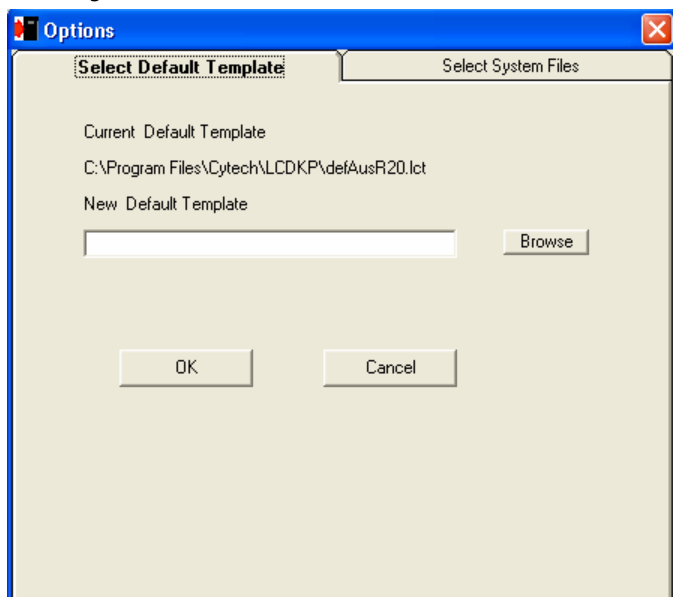
Toolbar

The toolbar serves to provide shortcut keys, which consists of the more commonly used functions.

	Description
New	Opens a new template file.
Open	Opens an existing file.
Save	Saves the current configuration.
Download	Downloads the current configuration.

Changing Configuration

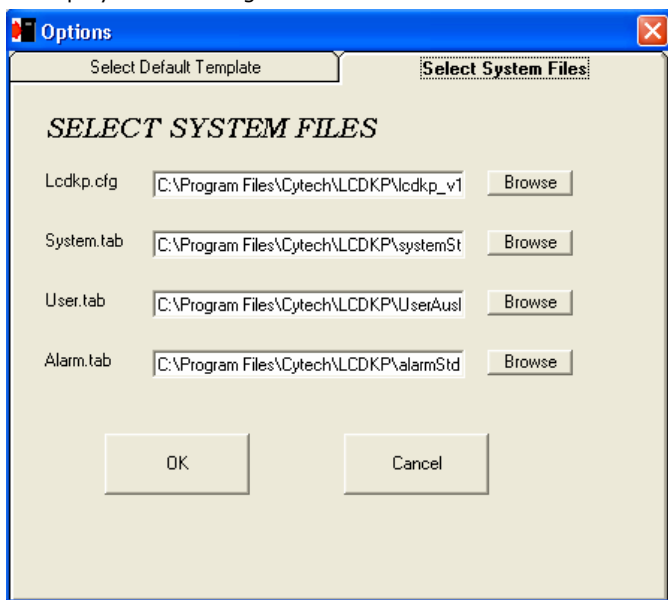
The default template set for the LCDKP Customisation Software is "Standard Residential". For systems that are using other wordlist, e.g. Pagewatch, UK Residential, Australian Residential and so on, the template will need to be changed. This can be done by clicking on "Edit" → "Options". This will bring up the following screen:



Here, the user is able to see the default template, as well as to customise it. From the screenshot shown, the current template used is "defAusR20.lct". To change the default template, click on "Browse" and select the template of choice. After that, the program will remind the user that the new settings will only take effect after the program has been restarted. **Restart the program to use the new default template.**

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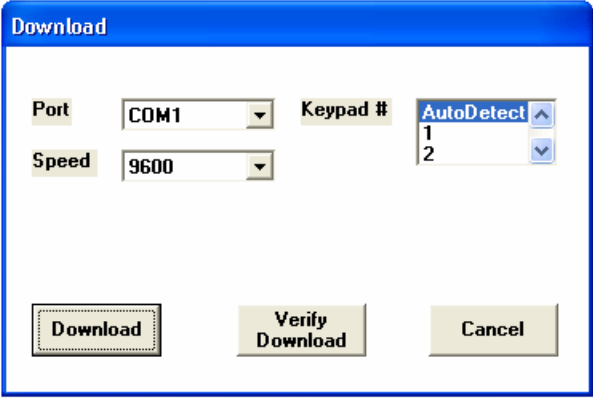
Instead of changing the default template, the system files may be changed for the change in a new vocabulary. This is useful in cases where the default template of choice is still maintained. For such cases, click on "Edit" followed by "Options" to bring up the Options menu. Select "Select System Files", which will display the following screen:



This screen shows the files used for the current configuration, comprising of 4 files – Lcdkp.cfg, Systm.tab, User.tab, and Alarm.tab. These are the four system files needed to generate the displayed words. Should any changes be needed, some or all of them should be changed. This can be done by clicking on the "Browse" button of the system file to be changed and select the correct path. **Note that changing the file paths may cause the settings to behave erratically.**

Downloading

1. Ensure that the UCM (Version 5.72 and above) is connected to both the PC (via RS232) as well as to the Comfort system (via 12V/COM/KA/KB) and SW8-E is shorted.
2. Click on "Download". This should bring up the download screen as shown below:



The screenshot shows a 'Download' dialog box with the following fields and buttons:

- Port:** A dropdown menu currently showing 'COM1'.
- Speed:** A dropdown menu currently showing '9600'.
- Keypad #:** A dropdown menu currently showing 'AutoDetect'. Below it, the numbers '1' and '2' are visible as options.
- Buttons:** Three buttons are located at the bottom: 'Download', 'Verify Download', and 'Cancel'.

3. Select the port, which is used to connect the UCM to the PC, and Keypad Number. Use Ctrl+Left Click on the Keypad Number should more than one keypad be required to be programmed or select auto-detect. The Keypad Number chosen should correspond to that of the ID of the Keypad to be programmed.
4. Click on "Download" to commence downloading, or "Verify Download" to verify that the downloaded configuration is that shown on the screen, or "Cancel" to quit the download screen.
5. Clicking on "Download" and "Verify Download" will bring up the sign-in window. Enter the system's user sign-in code.
6. After entering the sign-in code, the program will prompt the user to disconnect the KA/KB from the main board. Disconnect the KA/KB from the main board. **Ensure that the UCM is not connected to the 4 way connector J15 on the main board. If so, disconnect that cable, but connect the 12V/COM/KA/KB from the UCM to the keypad.** Click on "OK" to commence downloading.

Comfort II Downloading

1. Power up the KP04 by connecting **ONLY** the 12V/COM. The KP04 should display the version number as the time on the LCD screen. For example, the version shown in the image below is 1.01.



2. If the version shown is 1.01, then download the correct default found on www.cytech.biz/software.html.
3. Following that, download the configuration into the keypads using the LCD Keypad Language Customisation Software
4. If the version shown is 1.03 or later, connect up the KP04 to Comfort as per normal.
5. Should there be a mismatch between the versions of the language displayed and the vocabulary onboard Comfort, the KP04 will display "Wrong Text. Press *1 to sync".
6. To synchronise the language displayed with the vocabulary onboard, press the "*" and "1" keys. The screen should now change to "Downloading" with the downloading status bar shown.
7. After downloading, the KP04 will reset and there will be a "beep" heard.

KP04 Firmware History

KP04 1.03 (October 2005)

1. Comfort II vocabulary supported.
2. Comfort II downloading function (*1) supported.

KP04 1.01 (April 2005)

1. Initial Release

Document Revision History

Rev 1.05

- 30 June 2006 Updated

KP04 LCD Keypad Installation Manual

Document Title:	KP04 LCD Keypad Installation Manual
Document Revision	1.0.5
UCM Firmware:	5.72 and above (for downloading)
Date Last Modified:	8 March 2006
Comfort Version:	Outside or Action 4.226 and above
Configurator:	1.6.0 and above