Installation Instructions

DSC™
Security Products

LCD5501Z
Version 2.0

LIMITED WARRANTY

Digital Security Controls Ltd. warrants the original purchaser that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use. During the warranty period, Digital Security Controls Ltd. shall, at its option, repair or replace any defective product upon return of the product to its factory, at no charge for labour and materials. Any replacement and/or repaired parts are warranted for the remainder of the original warranty or ninety (90) days, whichever is longer. The original owner must promptly notify Digital Security Controls Ltd. in writing that there is defect in material or workmanship, such written notice to be received in all events prior to expiration of the warranty period.

International Warranty

The warranty for international customers is the same as for any customer within Canada and the United States, with the exception that Digital Security Controls Ltd. shall not be responsible for any customs fees, taxes, or VAT that may be due.

Warranty Procedure

To obtain service under this warranty, please return the item(s) in question to the point of purchase. All authorized distributors and dealers have a warranty program. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

Conditions to Void Warranty

This warranty applies only to defects in parts and workmanship relating to normal use. It does not cover:

• damage incurred in shipping or handling;

• damage caused by disaster such as fire, flood, wind, earthquake or lightning;

• damage due to causes beyond the control of Digital Security Controls Ltd. such as excessive voltage, mechanical shock or water damage;

• damage caused by unauthorized attachment, alterations, modifications or foreign objects;

• damage caused by peripherals (unless such peripherals were supplied by Digital Security Controls Ltd.);

• defects caused by failure to provide a suitable installation environment for the products;

• damage caused by use of the products for purposes other than those for which it was designed;

• damage from improper maintenance;

• damage arising out of any other abuse, mishandling or improper application of the products.

Digital Security Controls Ltd.'s liability for failure to repair the product under this warranty after a reasonable number of attempts will be limited to a replacement of the product, as the exclusive remedy for breach of warranty. Under no circumstances shall Digital Security Controls Ltd. be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of the product or any associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

Disclaimer of Warranties

This warranty contains the entire warranty and shall be in lieu of any and all other warranties, whether expressed or implied (including all implied warranties of merchantability or fitness for a particular purpose) And of all other obligations or liabilities on the part of Digital Security Controls Ltd. Digital Security Controls Ltd. neither assumes nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

This disclaimer of warranties and limited warranty are governed by the laws of the province of Ontario, Canada.
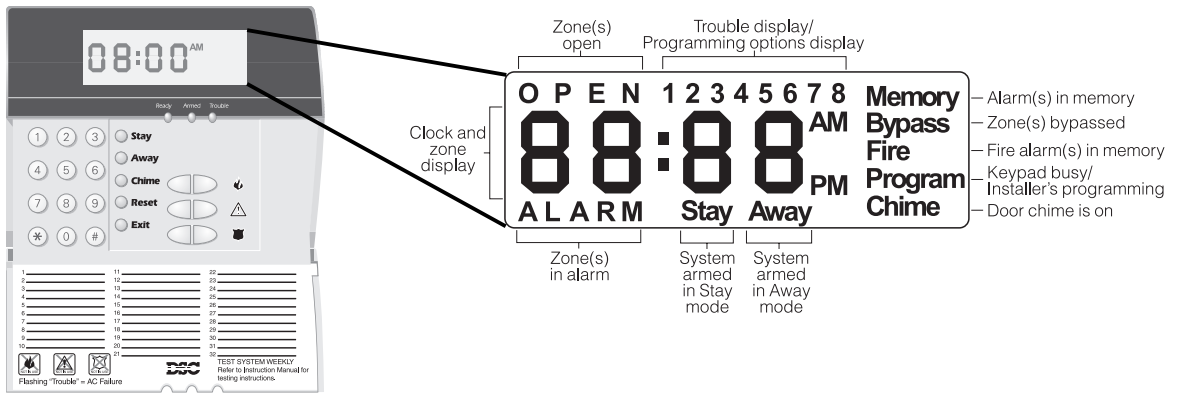
WARNING: Digital Security Controls Ltd. recommends that the entire system be completely tested on a regular basis. However, despite frequent testing, and due to, but not limited to, criminal tampering or electrical disruption, it is possible for this product to fail to perform as expected.

Out of Warranty Repairs

Digital Security Controls Ltd. will at its option repair or replace out-of-warranty products which are returned to its factory according to the following conditions. Anyone returning goods to Digital Security Controls Ltd. must first obtain an authorization number. Digital Security Controls Ltd. will not accept any shipment whatsoever for which prior authorization has not been obtained.

Products which Digital Security Controls Ltd. determines to be repairable will be repaired and returned. A set fee which Digital Security Controls Ltd. has predetermined and which may be revised from time to time, will be charged for each unit repaired.

Products which Digital Security Controls Ltd. determines not to be repairable will be replaced by the nearest equivalent product available at that time. The current market price of the replacement product will be charged for each replacement unit.

Zone(s) open — Trouble display/Programming options display

O P E N	1 2 3 4 5 6 7 8	AM	Memory	— Alarm(s) in memory
88:88			Bypass	— Zone(s) bypassed
		PM	Fire	— Fire alarm(s) in memory
			Program	— Keypad busy/Installer's programming
A L A R M	Stay Away		Chime	— Door chime is on

Clock and zone display

Zone(s) in alarm — System armed in Stay mode — System armed in Away mode

Introduction

The LCD5501Z keypad presents system status using an LCD-style display along with fixed words and numbers. The keypad can be used on security systems with up to 64 zones. The LCD5501Z is compatible with the following DSC security systems:

- PC580 v2.3 and higher
- PC1555 v2.3 and higher
- PC5008 v2.3 and higher
- PC5010 v2.0 and higher
- PC5015 v2.2 and higher
- PC5020 v3.0 and higher

Specifications

- Connects to control panel via 4-wire Keybus
- One keypad zone input
- Current draw: 45mA (standby) / 90mA (maximum)
- Optional tamper version
- Five programmable function keys
- Ready (green), Armed (red) and Trouble (yellow) status lights

Installation

Unpacking

The LCD5501Z package includes the following parts:

- One LCD5501Z keypad
- Four mounting screws
- One keypad inner door label
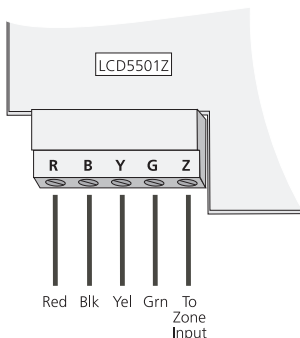- One set of Fire, Auxiliary and Panic key labels

Mounting

You should mount the keypad where it is accessible to designated points of entry and exit. Once you have selected a dry and secure location, perform the following steps to mount the keypad:

1. Remove the keypad backplate by loosening the screw located at the base of the unit.
2. Secure the keypad backplate to the wall in the desired location. Use the screws provided.
3. Before attaching the keypad to its backplate, complete the keypad wiring as described in the next section.

Wiring

1. Before beginning to wire the unit, ensure that all power (AC transformer and battery) is disconnected from the control panel.

2. Connect the four Keybus wires from the control panel (red, black, yellow and green) to the keypad terminals (R B Y G). Consult the diagram below:

3. You can connect a device - such as a door contact - to the "Z" terminal of the LCD5501Z. This eliminates the need to run wires back to the control panel for the device. To connect the zone, run one wire from the device to the Z terminal and the other wire from the device to the B (black) terminal. For powered devices, run the red wire to the R (positive) terminal and the black wire to the B (negative) terminal. When using end of line supervision, connect the zone according to one of the configurations outlined in your system's *Installation Manual*.

Applying Power

Once all wiring is complete, apply power to the control panel:

1. Connect the battery leads to the battery.

2. Connect the AC transformer.

For more information on control panel power specifications, see the control panel *Installation Manual*.

NOTE: *Do not connect the power until all wiring is complete.*

Enrolling the Keypad

Once all wiring is complete, you will need to enter a 2-digit number that tells the system the partition and slot assignment of the keypad.

If your system has partitions, you will need to also assign the keypad to a partition (1st digit).

The slot assignment (2nd digit) tells the panel which keypad slots are occupied. The panel can then generate a fault when a keypad supervisory signal is not present. There are eight available slots for keypads. LCD5501Z keypads are always assigned to slot 1 by default. You will need to assign each keypad to its own slot (1 to 8).

Enter the following at each keypad installed on the system:

1. Enter Installer Programming by pressing [*][8][Installer's Code]

2. Press [000] for Keypad Programming

3. Press [0] for Partition and Slot Assignment

4. Enter a two digit number to specify the partition and slot assignment.

NOTE: *If your system does not have partitions, enter [1] for the first digit.*

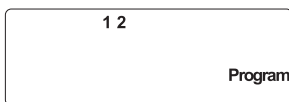|	
1st digit	Enter 0 for Global Keypad
	Enter 1 for Partition 1 Keypad
	Enter 2 for Partition 2 Keypad
	Enter 3 for Partition 3 Keypad
	Enter 4 for Partition 4 Keypad
	Enter 5 for Partition 5 Keypad
	Enter 6 for Partition 6 Keypad
	Enter 7 for Partition 7 Keypad
	Enter 8 for Partition 8 Keypad
2nd digit	Enter 1 to 8 for Slot Assignment

5. Press the [#] key twice to exit programming.

6. After assigning all keypads, perform a supervisory reset by entering [*][8][Installer's Code][902]. The panel will now supervise all assigned keypads and enrolled modules on the system.

Programming the Keypad

There are several programming options available for the LCD5501Z keypad. These are described below. Record all your programming choices in the programming worksheets included in this manual.

Programming the LCD5501Z is similar to programming the rest of the system. When you are in the LCD5501Z programming sections, the keypad will display which options are turned on along the top of the display. To turn an option on or off, press the number corresponding to the option on the number pad. The numbers of the options that are currently turned ON will be displayed.

For example, if options 1 and 2 are on, the display will look like:

```
┌─────────────────────┐
│  1 2                │
│                     │
│             Program │
└─────────────────────┘
```

For information on programming the rest of your security system, please refer to your system's *Installation Manual*.

Function Key Options

The function keys are programed in sections [1] to [5]. By default, the 5 function keys on the keypad are programmed as Stay Arm (03), Away Arm (04), Chime (06), Sensor Reset (14) and Quick Exit (16). You can change the function of each key on every keypad. Please see your system's *Installation Manual* for instructions on programming the keys, and a complete list of all the function key options available for your system.

Clock Options

The LCD5501Z will display the current time after 30 seconds of no key presses. To set the correct time and date for the system, please refer to your system's *Instruction Manual*. You can change how the keypad displays the time with the following options. To change the clock options:

1. Enter [*][8][Installer's code]
2. Enter [000] to go to keypad programming
3. Enter section [6] to go to clock options.
4. To turn any of the options on or off, press [1], [2], or [3]:

NOTE: *If the* **Time does not display on keypad** *option is selected, make sure that the* **Keypad displays time when zones are open** *option is also selected.*

> [1] ON = Time displays on keypad
>
> OFF = Time does not display on keypad
>
> [2] ON = Clock display is in AM/PM format (e.g. 08:00 AM)
>
> OFF = Clock display is in 24-hour format (e.g. 20:00)
>
> [3] ON = Keypad does not display time when zones are open
>
> OFF = Keypad displays time when zones are open

5. When you are finished programming the clock options, press [#] to exit.

Alarms Displayed While Armed Option

You can disable the display of alarms on the keypad when the system is armed. The display of alarms is enabled by default. To disable the display of alarms when the system is armed, turn off section [6], option [5]:

1. Enter [*][8][Installer's code]
2. Enter [000] to go to keypad programming
3. To turn the display of alarms on or off, enter section [6].
4. Turn option [5] on or off:
   [5] ON = Alarms not displayed while system is armed
       OFF = Alarms are always displayed while system is armed
5. When you are finished, press [#] to exit.

Emergency (Fire, Auxiliary, Panic) Key Options

You can enable or disable the Fire, Auxiliary and Panic keys at each keypad. These keys are enabled by default. Please see your system's *Installation Manual* for more information on these keys and their options. To turn any of the emergency keys on or off on the keypad:

1. Enter [*][8][Installer's code]
2. Enter [000] to go to keypad programming
3. Enter section [7].
4. To turn the emergency key options on or off, press [1], [2], or [3]:
   [1] ON = Fire key enabled
       OFF = Fire key disabled
   [2] ON = Auxiliary key enabled
       OFF = Auxiliary key disabled
   [3] ON = Panic key enabled
       OFF = Panic key disabled
5. When you are finished, press [#] to exit.

Door Chime Options

You can program the LCD5501Z keypad to sound a tone when any zone is opened or closed. There are two parts to the LCD5501Z door chime programming:

- Program if the LCD5501Z will chime when zones are opened and/or closed.
- Program the type of sound the LCD5501Z will make when an individual zone is opened or closed.

For the door chime feature to work, you will also need to turn on the Door Chime attribute for each zone that will trigger the chime. This programming is done in the control panel software. Refer to your control panel's *Installation Manual* for more information.

Door Chime on Zone Openings/Closings

You can program each LCD5501Z keypad to sound a door chime when zones are opened and/or when they are closed. By default, LCD5501Z keypads are programmed to sound door chimes on both zone openings and closings.

To change the door chime opening/closing settings, at each LCD5501Z keypad:

1. Enter [*][8][Installer's code]
2. Enter [000] to go to keypad programming
3. Enter section [6].
4. To turn the options on or off, press [6] or [7]:
   [6] ON = Door Chime Enabled for Zone Openings
       OFF = Door Chime Disabled for Zone Openings
   [7] ON = Door Chime Enabled for Zone Closings
       OFF = Door Chime Disabled for Zone Closings
5. When you are finished, press [#] to exit.

Door Chime Sounds

You can program the LCD5501Z keypad to make different door chime sounds for individual zones, or groups of zones. Each LCD5501Z keypad can make any of four door chime sounds for each zone that triggers the door chime:

· 6 quick beeps (default sound)
· 'Bing – Bing' tone
· 'Ding – Dong' tone
· 'Alarm' tone

NOTE: For a zone to be able to trigger the door chime sound, the Door Chime zone attribute must also be enabled in the control panel programming. Please see your control panel Installation Manual.

To change the door chime sounds:

1. Enter [*][8][Installer's code].
2. Enter [*] to go to door chime sound programming.
3. Enter a 2-digit number for the zone you want to program [01] - [32].
4. Turn one of the following options on by pressing [1], [2], [3], or [4]:
   [1]   6 quick beeps (default sound)
   [2]   'Bing – Bing' tone
   [3]   'Ding – Dong' tone
   [4]   'Alarm' tone

NOTE: Make sure that only one of the above options is turned on. If more than one is on, the keypad will sound the first option that is enabled. If none of the options are selected, the keypad will not make any sound when the zone is opened or closed.

5. To program the door chime sound for another zone, repeat steps 3 and 4.
6. When you are finished programming the door chime sounds, press [#] to exit.

Programming Worksheets

[000] Keypad Programming

1. Enter [*][8][Installer's code]
2. Enter [000] to go to keypad programming

[0] Keypad Enrollment

Valid entries are 01-18; e.g. enter [11] for partition 1, slot 1. Default = 11

1st digit	Enter 0 for Global Keypad
	Enter 1 for Partition 1 Keypad
	Enter 2 for Partition 2 Keypad
	Enter 3 for Partition 3 Keypad
	Enter 4 for Partition 4 Keypad
	Enter 5 for Partition 5 Keypad
	Enter 6 for Partition 6 Keypad
	Enter 7 for Partition 7 Keypad
	Enter 8 for Partition 8 Keypad
2nd digit	Enter 1 to 8 for Slot Assignment

Slot: |___|___|

[1]-[5] Function Key Assignments

	[1] Key 1	[2] Key 2	[3] Key 3	[4] Key 4	[5] Key 5
Defaults:	03	04	06	14	16
	Stay	Away	Chime	Reset	Exit
	|___|___|	|___|___|	|___|___|	|___|___|	|___|___|

[6] LCD5501Z Keypad Options

Default		Option	On	Off
ON	|___|	1	Local Clock Display Enabled	Local Clock Display Disabled
ON	|___|	2	Local Clock Displays AM/PM	Local Clock Displays 24-hour Time
OFF	|___|	3	Open Zones Override Clock Display	Open Zones Do Not Override Clock
OFF	|___|	4	For Future Use	
OFF	|___|	5	Alarms Not Displayed While Armed	Alarms Always Displayed While Armed
OFF	|___|	6	Door Chime Enabled for Zone Openings	Door Chime Disabled for Zone Openings
OFF	|___|	7	Door Chime Enabled for Zone Closings	Door Chime Disabled for Zone Closings
OFF	|___|	8	For Future Use	

[7] Emergency Key Options

Default		Option	On	Off
ON	|___|	1	[F] Key Enabled	[F] Key Disabled
ON	|___|	2	[A] Key Enabled	[A] Key Disabled
ON	|___|	3	[P] Key Enabled	[P] Key Disabled
OFF	|___|	4-8	For Future Use	

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[*] Door Chime Sound Programming

1. Enter [*][8][Installer's code][*]
2. Enter 2-digit zone number [01] - [64], then select door chime sound option [1] - [4]. Repeat for each zone that is to sound a chime.

Zone	Location	Options: [1] 6 Beeps (default)	[2] "Bing-bing"	[3] "Ding-dong"	[4] Alarm tone
[01]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[02]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[03]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[04]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[05]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[06]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[07]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[08]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[09]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[10]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[11]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[12]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[13]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[14]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[15]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[16]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[17]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[18]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[19]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[20]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[21]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[22]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[23]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[24]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[25]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[26]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[27]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[28]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[29]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[30]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[31]		⸤⸥	⸤⸥	⸤⸥	⸤⸥
[32]		⸤⸥	⸤⸥	⸤⸥	⸤⸥

Zone	Location	Options: [1] 6 Beeps (default)	[2] "Bing-bing"	[3] "Ding-dong"	[4] Alarm tone
[33]	|_____|	|___|	|___|	|___|	|___|
[34]	|_____|	|___|	|___|	|___|	|___|
[35]	|_____|	|___|	|___|	|___|	|___|
[36]	|_____|	|___|	|___|	|___|	|___|
[37]	|_____|	|___|	|___|	|___|	|___|
[38]	|_____|	|___|	|___|	|___|	|___|
[39]	|_____|	|___|	|___|	|___|	|___|
[40]	|_____|	|___|	|___|	|___|	|___|
[41]	|_____|	|___|	|___|	|___|	|___|
[42]	|_____|	|___|	|___|	|___|	|___|
[43]	|_____|	|___|	|___|	|___|	|___|
[44]	|_____|	|___|	|___|	|___|	|___|
[45]	|_____|	|___|	|___|	|___|	|___|
[46]	|_____|	|___|	|___|	|___|	|___|
[47]	|_____|	|___|	|___|	|___|	|___|
[48]	|_____|	|___|	|___|	|___|	|___|
[49]	|_____|	|___|	|___|	|___|	|___|
[50]	|_____|	|___|	|___|	|___|	|___|
[51]	|_____|	|___|	|___|	|___|	|___|
[52]	|_____|	|___|	|___|	|___|	|___|
[53]	|_____|	|___|	|___|	|___|	|___|
[54]	|_____|	|___|	|___|	|___|	|___|
[55]	|_____|	|___|	|___|	|___|	|___|
[56]	|_____|	|___|	|___|	|___|	|___|
[57]	|_____|	|___|	|___|	|___|	|___|
[58]	|_____|	|___|	|___|	|___|	|___|
[59]	|_____|	|___|	|___|	|___|	|___|
[60]	|_____|	|___|	|___|	|___|	|___|
[61]	|_____|	|___|	|___|	|___|	|___|
[62]	|_____|	|___|	|___|	|___|	|___|
[63]	|_____|	|___|	|___|	|___|	|___|
[64]	|_____|	|___|	|___|	|___|	|___|

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