

# DGP-641 LCD Keypad (V1.3)



## Installer's Guide



DGP-641

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## **1.0 INTRODUCTION**

Thank you for choosing Paradox<sup>®</sup> Security Systems. The Digiplex<sup>™</sup> Security System is an advanced technology security system that will provide reliable security protection and powerful features that are easy to use. The elegant and user-friendly Digiplex<sup>™</sup> LCD Keypad will allow easy access to the security system's functions and information at the touch of a button. Since all programming is accomplished through the keypad, please read this manual carefully.

## **1.1 SPECIFICATIONS**

Power input:	9-16 VDC, 80mA maximum
Speed operation:	16 MHz
PGM current limit:	50 mA
Number of inputs:	1
Number of zones:	1 standard zone, no tamper recognition
Power indication:	Yellow LED on
Locate indication:	Green and yellow LEDs flash simultaneously
Bus fault indication:	Red and yellow LEDs flash alternately
Lock Level 2 indication:	Green LED flashes twice per second for approximately 16 seconds after power up. The LCD will display "Safety Mismatch, Call Service" if the safety code transmitted by the control panel is different (safety mismatch).
Tamper Switch:	Yes (also used to deactivate locate)
LCD:	Super Twisted Nematic display (STN), wide viewing angle, 2 lines of 16 characters, backlight and contrast adjustable

## 2.0 INSTALLATION

## 2.1 CONNECTING THE KEYPAD

The Digiplex<sup>™</sup> LCD keypads are connected to the control panel's bus in a star and/or daisy chain configuration. This 4-wire communication bus provides power and two-way communication between the control panel and all modules connected to it. Connect the four terminals labeled red, black, green and yellow of each keypad to the corresponding terminals on the control panel as shown in Figure 2.1. Refer to the *Digiplex Control Panel's Reference & Installation Manual* for the maximum allowable installation distance from the control panel.

#### 2.2 CONNECTING KEYPAD ZONES

Each keypad has one traditional hardwired input terminal, allowing you to connect one detector or door contact directly to the keypad. For example, a door contact located at the entry point of an establishment can be wired directly to the input terminal of the entry point keypad instead of wiring the door contact all the way to the control panel.

Connect the device to the keypad's input terminal as shown in Figure 2.1. In order to communicate its status to the control panel, devices connected to the keypad's input terminal must be assigned to a zone in the control panel and the zone's parameters must be defined. For more information on zone assignment, please refer to the *Digiplex Control Panel's Reference & Installation Manual*. Please note that even with the ATZ (zone doubling) feature enabled, the keypad supports only one detection device.

## 2.3 PROGRAMMABLE OUTPUT (PGM)

Each keypad has one on-board PGM. A PGM is a programmable output that toggles to its opposite state (i.e. a normally open PGM will close) when a specific event has occurred in the system (see section 5.2 of this manual). Upon activation, the PGM can provide 50mA to any device connected to it. If the current drawn is to exceed the current limit, a relay should be connected to the PGM as shown in Figure 2.1.





## 3.0 PROGRAMMING

Programming the DGP-641 LCD keypad is simple. Enter the "Module Programming Mode", enter the desired section followed by the required data as shown in Figure 3-1. When programming the keypad, use the *DGP-641 LCD Keypad Programming Guide* to keep track of which sections were programmed and how. We strongly recommend you read this entire manual before you begin programming.

The LCD keypad can also be programmed using the *WinLoad* Security System Management Software. For more information, refer to the WinLoad instructions or visit our web site at www.paradox.ca.

#### 3.1 ENTER MODULE PROGRAMMING MODE

The keypad, like all other modules in the Digiplex system, is programmed through the control panel. To do so, you must first enter the "Module Programming Mode" (see Figure 3-1).

The control panel will then redirect all programming to the selected keypad. Every time the [CLEAR] key is pressed it will revert to the preceeding step, unless entering in data in which case it will erase the current data entry. Please note that the serial number is located on the keypad's PC board or enter section [000] in Step 3 from Figure 3-1 to view the keypad's serial number.

#### Figure 3.1: Module Programming Mode

"Normal Mode"

Step 1: Press and hold the [0] key

Step 2: Enter [INSTALLER CODE] (by default 000000)

Step 3: Enter section [953]

Step 4:

"Module Programming Mode" Enter the keypad's 8-digit [SERIAL NUMBER]

Step 5:

Enter the 3-digit [SECTION] you want to program

Step 6:

Enter the required **[DATA]**. Depending on the section entered, the type of data required may differ.



#### **3.2 PROGRAMMING METHODS**

#### 3.2.1 Feature Select Programming

Program sections **[001]** to **[005]** by enabling or disabling options. Within the sections, numbers from **[1]** to **[8]** represent a specific keypad option. Press the key corresponding to the desired option and the digit will appear in the display. This means the option is enabled. For example, in Step 6 of Figure 3-1, options **[1]** and **[4]** are enabled. Press the key again to remove the digit from the display thereby disabling the option. Press **[ENTER]** when options are set.

#### 3.2.2 Decimal Programming

Sections **[006]** and **[007]** are programmed using "Decimal Programming". In this method, any digit from 000 to 255 can be entered.

## 3.3 MODULE BROADCAST

The Digiplex Control Panel's *Module Broadcast* feature can be used to copy the contents of one keypad to one or many other keypads.

Step 1: From Normal Mode press and hold the [0] key.

Step 2: Enter [INSTALLER CODE].

Step 3: Enter section [954].

Step 4: Enter the [SERIAL #] of the source keypad. The *source* is the programmed keypad whose data you want to copy to other keypads.
Step 5: Enter the [SERIAL #] of the destination keypads. The *destination* is the keypad(s) you want to program with the source's data. If you want to program more than one keypad with the source's data, enter the serial numbers of the keypads one at a time.
Step 6: Once you have entered the serial numbers of the keypads you want to program, press the [ACC] key.

## **4.0 SYSTEM OPTIONS**

#### **4.1 PARTITION ASSIGNMENT**

Section 001: Options [1] to [4]

Each keypad in the Digiplex system can be assigned to one or more partitions. In section **[001]**, options **[1]** to **[4]** represent partitions 1 through 4 respectively. To assign the keypad to a partition, simply enable the option that corresponds to the desired partition. For example, Step 6 in Figure 3-1 on page 6, would show options 1 and 4 enabled. Therefore, the keypad would be assigned to partitions 1 and 4 only. (By default, partition 1 to partition 4 are enabled.)

#### 4.2 DISPLAY CODE ENTRY

Section 002: Option [1]

The digits of the *User Access Codes* can be displayed on the LCD screen when they are entered.

Option [1] OFF = Digits are replaced by a \*. (default)

Option [1] ON = Access Code digits will be displayed.

#### 4.3 DISPLAY EXIT DELAY TIMER

Section 002: Option [2]

Based on the user's needs, an Exit Delay Timer will be programmed to provide the user time to exit the partition before the system is armed. The Exit Delay Timer's countdown can be displayed on the LCD screen. Option [2] OFF = Will not display Exit Delay timer (default) Option [2] ON = LCD screen will display Exit Delay timer

#### 4.4 DISPLAY ENTRY DELAY TIMER

Section 002: Option [3]

Based on the user's needs, an Entry Delay Timer will be programmed to provide the user time to enter their *User Access Code* before the alarm is triggered. The Entry Delay Timer 's countdown can be displayed on the LCD screen.

Option **[3]** OFF = Will not display the Entry Delay Timer (default) Option **[3]** ON = LCD screen will display Entry Delay Timer

#### 4.5 CONFIDENTIAL MODE

Section 002: Option [4] and [5] Section 006

If the Confidential Mode is enabled and no actions are performed on the keypad for a period of time (005-255 seconds) defined by the Confidential Mode Timer, the LCD screen will appear as shown in Figure 4-1 and the "AC" and "STATUS" LED will be off until either a button is pressed or an access code is entered. Confidential Mode is activated by enabling option [4]. Option [5] regulates whether the LCD screen will be activated at the touch of a button or only when an access code is entered. Section [006] determines the amount of time without action before the keypad enters Confidential Mode.

Once the LCD screen is activated (by code or button), *Normal Mode* will appear and display the date and time as shown in Figure 4-1. The status of the areas, the open zones for every area the keypad is assigned, the *Alarm Memory Display* if necessary, and the *Trouble Display* if necessary (see *Digiplex User Manual*) will also scroll on the LCD screen.

Section [002]: Option [4] OFF Option [4] ON	= Normal Mode (default) = Confidential Mode
Option <b>[5]</b> OFF Option <b>[5]</b> ON	<ul> <li>LCD screen activated by entering an access code (default)</li> <li>LCD screen activated by pressing a button</li> </ul>
Section <b>[006]</b> :	<ul> <li>Confidential Mode Timer can be set from 005 to 255 seconds (default: 2 minutes)</li> </ul>

#### Figure 4-1: LCD Screen

Screen in Normal Mode: Screen in Confidential Mode:

 PARRDOX FRMILY
 CONFIDENTIAL

1999/11/25 09:07

## 4.6 MUTING

Section 003: Option [1]

The keypad can be programmed **not** to emit audible sounds, including *Chimed* zones. During Muting, the keypad will **only** emit the *Confirmation Beep, Rejection Beep*, and beep when a button is pressed.

Option [1] OFF = Audible sounds (default) Option [1] ON = Mute

1999/11/25 09:07

#### 4.7 BEEP ON EXIT DELAY

Section 003: Option [2]

The keypad can beep once every second during the Exit Delay Timer. During the final 10 seconds, it will beep more rapidly to provide a final warning before the area is armed. Option **[2]** OFF = Exit Delay beep disabled Option **[2]** ON = Exit Delay beep enabled (default)

#### 4.8 CHIME ON ZONE CLOSURE

Section 003: Option [4]

During the *Chime Zone Time Period* that the user sets, the keypad can emit an intermittent beep whenever a zone with the *Chime* feature enabled closes (see *Digiplex User Manual* for details on *Chime Zones*). If the user does not set the *Chime Zone Time Period* and this option is enabled, the *Chime Zones* will always beep upon closure.

Option [4] OFF = Chime on Zone Closure disabled (default) Option [4] ON = Chime on Zone Closure enabled

#### 4.9 BEEP ON TROUBLE

Section 004: Options [1] to [4]

Potential troubles have been sorted into groups. With these options enabled, the keypad will emit an intermittent beep tone whenever a trouble condition from the Trouble Groups occurs in the system. The intermittent beep will remain activated until the user enters the *Trouble Display* or if the trouble is resolved. For a list of the troubles, see the *Digiplex Control Panel's Reference and Installation Manual.* 

The intermittent beep will be re-initialized whenever the trouble condition re-occurs.

Option [1] OFF = Beep disabled: System Troubles and Clock Loss (default) Option [1] ON = Beep enabled: System Troubles and Clock Loss

Option [2] OFF = Beep disabled: Communicator Troubles (default) Option [2] ON = Beep enabled: Communicator Troubles

Option **[3]** OFF = Beep disabled: Module and Bus Troubles (default) Option **[3]** ON = Beep enabled: Module and Bus Troubles

Option [4] OFF = Beep disabled: all Zone Troubles (default) Option [4] ON = Beep enabled: all Zone Troubles

#### 4.10 KEYPAD TAMPER ENABLE

Section 005: Option [5]

When Tamper is enabled and the keypad's on-board tamper switch is triggered, the keypad will send a Tamper report to the control panel via the communication bus. Option **[5]** OFF = Keypad's Tamper is disabled (default)

Option [5] ON = Keypad's Tamper is enabled

## 5.0 PGM PROGRAMMING

## 5.1 PGM STATE

Section 005: Option [1]

The keypad's on-board PGM can be set as normally open or normally closed. When an open PGM is activated, it will close the circuit from ground and enable any devices connected to it. When a closed PGM is activated, it will open the circuit and disable any devices connected to it. When the PGM Activation Event occurs (see section 5.2 of this manual), the PGM will switch to its opposite state (i.e. open to closed or closed to open).

Option [1] OFF = PGM is Normally Open (default) Option [1] ON = PGM is Normally Closed



The PGM can provide 50mA to any device connected to it.

## 5.2 PGM ACTIVATION EVENT

Section 008

The PGM Activation Event determines which event(s) will activate the keypad's on-board PGM. For details on the available activation events, refer to the PGM Programming Table in the *Digiplex Programming Guide*.

1) In section **[008]**, key in the first digit where each digit from 8 to F represents an event group (0 = PGM Disabled). The first digit <u>cannot</u> be a value from 1 to 7.

2) Then enter the second digit, which can be any digit from 0 to F depending on the first digit chosen.

3) After entering the second digit, use *Feature Select Programming* to enable/disable options [1] to [8]. Each option represents a specific event as detailed in the PGM Programming Table on the *Digiplex Programming Guide*.

These keys represent the hexadecimal values from A to F:

[STAY] = A	[arm] = C	[BYP] = E
[FORCE] = B	[disarm] = D	[MEM] = F

#### **5.3 PGM DEACTIVATION EVENT**

Section 009

Once the *PGM Activation Event* (see section 5.2 of this manual) has occurred, the keypad's on-board PGM will return to its normal state (deactivate) when the event programmed in section **[009]** occurs unless the keypad is in *PGM Timed Mode* (see section 5.4 of this manual). The PGM Deactivation Event is programmed in the same manner as the *PGM Activation Event*.

## 5.4 PGM TIMED MODE

Section 005: Option [2]

If the keypad is in PGM Timed Mode, the keypad's on-board PGM will be deactivated according to the *PGM Timer* (see section 5.5 of this manual) instead the *PGM Deactivation Event*.

Option **[2]** OFF = Deactivates on PGM Deactivation Event (default) Option **[2]** ON = PGM will deactivate according to the PGM Timer

#### 5.5 PGM TIMER

Section 007

If the keypad's on-board PGM is in *PGM Timed Mode*, the value programmed in section **[007]** represents how long the PGM will remain in its opposite state (see section 5.1 of this manual) after being activated. To program the timer, enter a 3-digit decimal value (000 to 255) in section **[007]**. The 3-digit value will be multiplied by the *PGM Base Time* of 1 second or 1 minute (see section 5.6 of this manual).

#### 5.6 PGM BASE TIME

Section 005: Option [3]

If the keypad's on-board PGM is set in *PGM Timed Mode* (see section 5.4 of this manual) you must define whether the value programmed in section **[007]** is in minutes or seconds. Option **[3]** OFF = PGM Base Time is 1 second (default) Option **[3]** ON = PGM Base Time is 1 minute

## 5.7 PGM OVERRIDE

Section 005: Option [4]

When PGM Override is enabled, the keypad's on-board PGM will ignore *PGM Activation Events, PGM Deactivation Events, and PGM Timers.* It will remain in its normal state (see section 5.1 of this manual) until the PGM Override is disabled. This option may be used to test the PGM connections.

Option [4] OFF = PGM Override disabled (default) Option [4] ON = PGM Override enabled

## 6.0 MESSAGE PROGRAMMING

#### Sections 101 to 249

Each section from **[101]** to **[249]** contains one message with a maximum of 16 characters. For more details and to record any changes, use the *DGP-641 LCD Programming Guide*.

Section [101] to [148] = Zone 01 to Zone 48 respectively

Section [149] to [244] = Code 01 to Code 96 respectively

Section [245] = Paradox Family

Section [246] to [249] = First, Second, Third, & Fourth Area respectively After entering the section corresponding to the desired message, the message can be re-programmed to suit your installation needs as detailed in Table 1. For example, section [101] *"ZONE 01"* can be changed to *"FRONT DOOR"*.

rubie 1. message i regramming	Table 1:	Message	Programming
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Key	Press Key Once	Press Key Twice	Press Key Three Times				
[1]	A	В	С				
[2]	D	E	F				
[3]	G	Н	I				
[4]	J	к	L				
[5]	М	N	0				
[6]	Р	Q	R				
[7]	S	Т	U				
[8]	V	W	х				
[9]	Y	Z					
Also, see special functions on the next page.							

[STAY] - Insert Space Pressing the [STAY] key inserts a blank space in the current cursor position.

**[FORCE]** - Delete Pressing the **[FORCE]** key will delete the character or blank space found at the current cursor position.

[ARM] - Delete Until the End Pressing the [ARM] key will delete all characters and spaces to the right of the cursor and at the cursor's position.

[DISARM] - Numeric Keys / Alphanumeric Keys Every time the [DISARM] key is pressed it will toggle numeric keys to alphanumeric keys and vice versa. Numeric: Keys [0] to [9] represent numbers 0 to 9

**[BYP]** - Lower Case / Upper Case Every time the **[BYP]** key is pressed it will toggle the case setting from lower to upper case and vice versa.

[MEM] - Special Characters

After pressing the **[MEM]** key, the cursor will turn into a flashing black square. Using Table 2 on the following page, enter the 3-digit number that represents the desired symbol.

							-			-	-
<b>0</b> 32	048	064	080	096	112	128	144	160	176	1 <b>9</b> 2	208
	0	d	Р	,	р	Û	Ê	a	§	Ø	-
<b>0</b> 33	049	065	081	<b>09</b> 7	113	12 <b>9</b>	145	161	177	1 <b>9</b> 3	209
!	1	Α	Q	а	q	Ù	È	Î	±	Ŀ	
034	050	066	082	098	114	130	146	162	178	194	210
	2	В	R	b	r	Ú	É		ij	Ð	0
035	051	<b>06</b> 7	083	099	115	131	147	163	179	1 <b>9</b> 5	211
#	3	С	S	С	S	U	E	Í	T	ß	,
036	052	068	084	100	116	132	148	164	180	196	212
\$	4	D	Т	d	t	Û	ê		↓	Ç	,
<b>0</b> 37	053	069	085	101	117	133	149	1 <b>6</b> 5	181	197	213
%	5	E	0	е	u	ù	è	i		R	~
038	054	070	086	102	118	134	150	166	182	198	21 <b>4</b>
&	6	F	V	f	v	ú	é	Ň	f	a	÷
039	<b>0</b> 55	071	087	103	119	135	151	167	1 <b>8</b> 3	199	215
,	7	G	W	g	w	0	Ë	ñ	£		«
040	056	<b>0</b> 72	088	104	12 <b>0</b>	136	152	168	184	200	216
(	8	Н	X	h	Х	Ò	Å	Ň	$  \rightarrow$	μ	*
041	057	<b>0</b> 73	089	105	121	137	153	169	185	2 <b>0</b> 1	217
)	9		Y	i	У	Ó	Ä	9	4	Ø	ŀ
042	058	074	090	106	122	138	154	170	186	202	218
*		J	Z	J	Z	Q	å	g	千	ÿ	\
043	059	<b>0</b> 75	091	107	123	139	155	171	187	203	21 <b>9</b>
+	;	K		k	{	0	â	V	$  \mathbf{T}$	Ã	Х
044	060	076	<b>09</b> 2	108	124	140	156	172	188	204	220
,	<	L	¥			0	à		9	¢	0
045	061	077	093	109	125	141	157	173	189	2 <b>0</b> 5	221
_	=	Μ		m	}	0	á	<u> </u>	1/2	ã	Θ
046	062	078	094	110	12 <b>6</b>	142	15 <b>8</b>	174	190	206	222
•	>	N	^	n	$\rightarrow$	0	ä	<u>m</u>	1⁄3	Ő	ī
047	063	079	<b>09</b> 5	111	127	143	159	175	1 <b>9</b> 1	207	223
/	?	$0$	_	0	$\rightarrow$	5	<u> </u>	Æ	1⁄4	ΙÕ	

Table 2: Special Characters Catalog

## Warranty

The Seller warrants its products to be free from defects in materials and workmanship under normal use for a period of one year. Except as specifically stated herein, all express or implied warranties whatsoever, statutory or otherwise, including without limitation, any implied warranty of merchantability and fitness for a particular purpose, are expressly excluded. Because Seller does not install or connect the products and because the products may be used in conjunction with products not manufactured by Seller, Seller cannot guarantee the performance of the security system. Seller obligation and liability under this warranty is expressly limited to repairing or replacing, at Seller's option, any product not meeting the specifications. In no event shall the Seller be liable to the buyer or any other person for any loss or damages whether direct or indirect or consequential or incidental, including without limitation, any damages for lost profits, stolen goods, or claims by any other party caused by defective goods or otherwise arising from the improper, incorrect, or otherwise faulty installation or use of the merchandise sold.

