

Installation Manual

DSC™
Power832™

S E C U R I T Y S Y S T E M

PC51O8L v1.0

Please refer to the System Installation Manual for information on limitations regarding product use and function and information on the limitations as to liability of the manufacturer.

FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

This Class B digital apparatus meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences de règlement sur le matériel brouilleur du Canada.

Introduction

S E C T I O N 1

1.1 Features

The PC5108L serves three purposes:

- To expand the PC5015 v2.2 alarm control panel's zone capability by adding eight fully programmable zone inputs
- To act as an interface between the DLM-4L v1.0L Video Transmission module and the PC5015 v2.2 alarm control panel
- To function as a video switcher

1.2 Specifications

- Current rating: 60mA
- Eight fully programmable zones
- Maximum of eight video cameras
- VAUX+ rating: 12 VDC, fused @ 250mA

1.3 Additional Equipment

- Control panel compatibility: PC5015 v2.2
- Downlook module compatibility: DLM-4L v1.0L
- Keypad compatibility (for Active Camera Monitor Selection function key): LCD5500Z v2.X and PC55XX v2.X
- Downloading software: DLS-1 v6.5
- Local downloading: PC-Link
- Compatible cabinets:
PC4002C – space for PC5108L plus two other modules of same dimension

Installation

S E C T I O N 2

2.1 Unpacking the PC5108L

The PC5108L product should include the following items:

- one PC5108L module
- five plastic stand-offs

2.2 Mounting the Unit

The PC5108L should be located inside a compatible metal cabinet, mounted in a dry, secure location. Preferably, it should be placed close to the control panel and at a convenient distance from the connected devices.

Perform the following steps to mount the unit:

1. Press the four plastic stand-offs through the circuit board mounting holes at back of the cabinet.
2. Secure the cabinet to the wall in the desired location. Use appropriate wall anchors when securing the cabinet to drywall, plaster, concrete, brick or other surfaces.
3. Press the PC5108L board into the four plastic stand-offs to secure the module to the cabinet.

Once the unit is mounted, wiring may be completed.

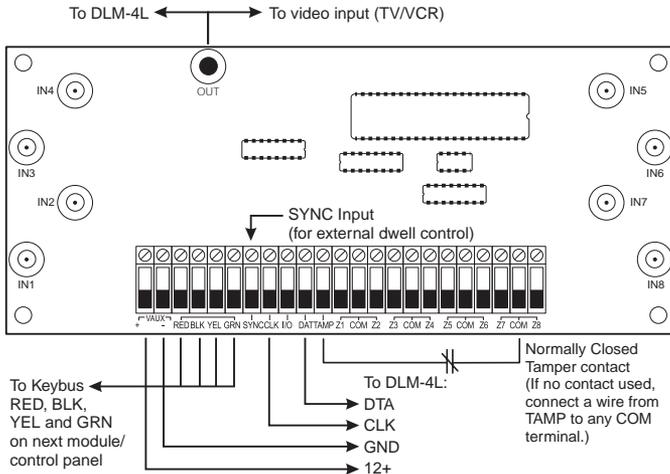
2.3 Wiring the Unit

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

Perform the following steps to complete wiring:

1. Connect the four Keybus wires to the PC5108L. Connect the red, black, yellow and green Keybus wires to the RED, BLK, YEL and GRN terminals, respectively.
2. Connect the DLM-4L module (if used) to the PC5108L. A 75 ohm coaxial cable is required for this connection. For more information, see the DLM-4L Installation Instructions.
3. Connect the cameras to the PC5108L using RG-59 75 ohm coaxial cable.
4. Connect the external tamper switch to the PC5108L, if used. If not used, run a wire from TAMP to any COM terminal.
5. Complete all zone wiring to the PC5108L. Refer to the PC5015 Installation Manual for information on zone wiring configurations.

Consult the following wiring diagram for further information:



NOTE: If a TV or VCR is used in combination with the DLM-4L, make sure that the jumper J102 on the DLM-4L is removed and the TV/VCR video input is set to 75 ohms.

2.4 Applying Power

After all wiring is completed, apply power to the control panel. Connect the battery leads to the battery, then connect the AC transformer. For more information on control panel power specifications, see the PC5015 Installation Manual.

! Do not connect the power until all wiring is complete.

How to Program

S E C T I O N 3

3.1 Programming via Keypad

The PC5108L can be programmed from a system keypad. To program the module, perform the following:

1. Enter [*][8] followed by your Installer's Code.
2. Enter [806] to access PC5108L module programming.
3. Enter a 2-digit number corresponding to the PC5108L programming section you wish to program. For example, to program the Module Zone Group Assignment, enter [00].
4. Enter the required data for the selected section. The keypad will only accept the number of digits required for that section. For example, Section [00] will accept two digits. The keypad will confirm a correct entry by sounding two short beeps.

For more information regarding programming the system through Installer's Programming, refer to Section 4 "How to Program" in your PC5015 Installation Manual.

3.2 Programming via Downloading

The PC5108L can be programmed via downloading using either of the following methods:

1. By connecting to the control panel remotely using a modem.
2. By connecting to the control panel directly using the PC-Link.

Both cases require the use of DLS-1 v6.5. For instructions on downloading using either of these methods, see the Downloading Manual.

Since four images can be stored by the DLM-4L for each event, four timing and camera entries are required. Entering 00 for the timing means that the picture will be taken without delay. Entering 00 for the camera means that no picture will be taken.

The programming sections resembles the following example (all entries by default are [00]):

```

                T       C       T       C       T       C       T       C
[01] Zone 1   0  1  0  3   0  3  0  5   0  4  0  2   0  0  0  0
    
```

During the delay (dwell time) the PC5108L remains (dwells) on that camera until the time expires, after which the next camera in the script is selected. In the above example, when Zone 1 goes into alarm, tamper or fault, the DLM-4L will:

- immediately select Camera 3 and take a picture;
- at 100 ms, switch to Camera 5 to take a 2nd picture;
- at 300 ms after this, switch to Camera 2 to take a 3rd picture;
- wait a further 400ms before resuming in either Pre-Trigger monitoring or Camera select monitoring.

The DLM-4L will follow the programmed Timing and Camera settings for all events. By default, if another Downlook-initiating event occurs while there are pictures in memory (not yet transmitted), the DLM-4L will not overwrite the existing pictures.

If the **Pictures Can Be Overwritten** option is enabled, the DLM-4L will overwrite the pictures in memory when a new Downlook-initiating event occurs.

For Delay type zones, timing and camera settings will be followed when the zone is violated. If the user disarms the system before the entry delay expires, the pictures will be erased. If the system is not disarmed, an alarm will occur and the stored pictures will be transmitted.

The various Downlook-initiating events/triggers are described below:

Event-initiated Downlook

The indicated events will initiate Downlook if the corresponding Timing and Camera entries are programmed. Some events are grouped under one heading. These events are the following:

- **Zone X Alarm/Tamper/Fault:** Downlook will be initiated when the corresponding zone exhibits an alarm, tamper or faulted condition.
- **Keypad Events:** these events include Duress alarm, FAP alarms, Keypad Lockout and Auto-Arm Cancel/Postpone.
- **Closings:** these events include arming by user code and all special closings (DLS, auto-arm, keyswitch, quick arm or maintenance code). A Late To Close will cause the closing script to be run even if Auto-Arming is not enabled.
- **Openings:** these events include disarming by user code and all special openings (DLS, keyswitch, or maintenance code).

Unidentified Wireless Keys should not be used to initiate Downlook.

Pre-trigger

The pre-trigger section can be programmed to allow Downlook to activate while the system is idle. This will allow pictures to be taken constantly while the system is idle.

The DLM-4L will continually follow the programmed pattern until a Downlook-initiating event occurs. At this point, the pre-trigger sequence will be suspended until the appropriate transmissions for the Downlook-initiating events have been sent.



Do not program video switching features when using Pre-Trigger.

Remote Trigger (for Escort5580 v2.0 or greater)

The remote trigger can only be used for systems that have an Escort5580 Audio Assistant installed.

With remote trigger, the end user can initiate Downlook to verify the status of the premises while they are absent. When the remote trigger is activated, the panel will transmit a System Test reporting code. The programmed timing and camera settings will then elapse and the images will be transmitted to central station. The user can then call the central station to verify the sent images.

Two areas must be programmed for the remote trigger feature:

1. The Timing and Camera entries in Subsection [41] Remote Trigger
2. The access code must have the following attributes enabled:
 Enable Attribute 4: Escort access
 Enable EITHER Attribute 5: Remote Trigger Phone 1
 OR Attribute 6: Remote Trigger Phone 2

For Attribute 5, the Downlook images will be sent to telephone number 1. For Attribute 6, the Downlook images will be sent to telephone number 2. *Do not enable both attributes on a single access code.*

To initiate Downlook via remote trigger, the user must perform the following:

1. Access the Escort5580 remotely.
2. Enter [*][8] followed by a valid access code.

If an access code with the correct attributes has been entered, the Escort5580 will announce "Goodbye" and will terminate the call. The panel will proceed to collect the Downlook images and transmit them to the central station.

For more information on the Escort module, see the Escort5580 Installation and Instruction Manuals. For information on programming access codes, see the PC5015 Instruction Manual.



DLM-4L Is Connected Subsection [50] Option [8]
 Pictures Can Be Overwritten Subsection [50] Option [7]
 Event-initiated Downlook Subsections [01]-[39]
 Pre-trigger Subsection [40]
 Remote trigger Subsection [41]



Depending on the type of device connected, the SYNC input must be programmed for Normal or Inverted operation. If normal operation is selected (default), the PC5108L will switch cameras on a low to high transition (rising edge). If the inverted option is selected, the PC5108L will switch cameras on a high to low transition (falling edge).

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External/Internal Dwell Control	Subsection [50]	Option [4]
SYNC Input Inverted/Normal	Subsection [50]	Option [6]

.....

4.5 Module Supervision

The control panel only supervises the PC5108L when the Module Zone Group Assignment section is programmed. When PC5015 programming section [903] **Module Supervision Field** is entered, the zone lights corresponding to the zone group assignments will represent the PC5108L.

The DLM-4L is supervised when the **DLM-4L Is Connected** option is enabled. This option must be enabled when using the DLM-4L. When section [903] Module Supervision Field is entered, the DLM-4L will be represented by zone light [23].

A **Downlook Supervisory Trouble** is generated when the panel no longer detects the DLM-4L on the system. To clear this trouble, enter Section [902] **Supervision Reset**. A Downlook Supervisory trouble restoral will be logged to the event buffer when the trouble is cleared.

For information on module supervision, see the PC5015 Installation Manual (Section 2.7 "Enable Supervision").

.....

Supervision Reset	Section [902]
Module Supervision Field	Section [903]
DLM-4L Is Connected	Subsection [50] Option [8]

.....

Testing and Troubleshooting

5.1 Camera Testing

Cameras connected to the PC5108L can be tested on a regular basis. The DLM-4L must be connected in order to use the testing feature.

Each camera must be enabled for testing. There is one **Camera X Test Enable/Disable** option for each camera. Not all cameras must be selected for testing. By default, the test feature is enabled for each camera.

If **Periodic Camera Test Enable/Disable** is ON, a camera test will occur every 30 minutes. When OFF, there are camera tests:

1. Upon a system test: This test is user-initiated. See the PC5015 Instruction Manual for testing instructions.
2. Upon exiting Installer's Programming.

The test will take up to five seconds to perform. If the camera test result is successful, normal system operation will continue. If the camera test produces bad results from any of the cameras, a system trouble will be initiated. The message "Camera X Trouble" will be logged to the event buffer. When the trouble condition has cleared, the message "Camera X Trouble Restore" will be logged.

A bad camera test result could be due to a number of factors, including bad camera wiring, loss of power to the camera or a faulty unit.

To test the **Downlook Remote Trigger** feature, perform the following:

1. Enter [*][8][Installer's Code][906].
2. Press number keys [1]-[4] to transmit remote trigger script via the appropriate path:
 - [1] telephone number 1 via landline
 - [2] telephone number 2 via landline
 - [3] telephone number 1 via LINKS
 - [4] telephone number 2 via LINKS

.....
Camera X Test Enable/Disable Subsection [60]
Periodic Camera Test Enable/Disable Section [017] Option [7]
Local Test of Downlook Remote Trigger Section [906]
.....

5.3 Software Default

To restore the PC5108L programming to the factory default settings, perform the following:

1. Enter PC5108L module programming by pressing [*][8][Installer's Code][806].
2. Enter programming subsection [99].
3. Enter [55]. Once [55] is entered, the module's default programming will be restored.

For instructions on restoring the default programming of the main panel or any other connected module, see the PC5015 Installation Manual.

Programming Worksheets

S E C T I O N 6

[806] PC5108L Module Programming

[00] Module Zone Group Assignment

Default = 00

First digit = Zones on terminals Z1-Z4 (Group 1)

Second digit = Zones on terminals Z5-Z8 (Group 2)

0 = Group Not Used

1 = Group Not Used

2 = Zones 9-12

3 = Zones 13-16

4 = Zones 17-20

5 = Zones 21-24

6 = Zones 25-28

7 = Zones 29-32

Timing and Camera Programming

All Entries are 00 by Default [01]-[32] Zone X Alarm/Tamper/Fault

	T	C	T	C	T	C	T	C
[01] Zone 1	<input type="text"/>							
[02] Zone 2	<input type="text"/>							
[03] Zone 3	<input type="text"/>							
[04] Zone 4	<input type="text"/>							
[05] Zone 5	<input type="text"/>							
[06] Zone 6	<input type="text"/>							
[07] Zone 7	<input type="text"/>							
[08] Zone 8	<input type="text"/>							
[09] Zone 9	<input type="text"/>							
[10] Zone 10	<input type="text"/>							
[11] Zone 11	<input type="text"/>							
[12] Zone 12	<input type="text"/>							
[13] Zone 13	<input type="text"/>							
[14] Zone 14	<input type="text"/>							
[15] Zone 15	<input type="text"/>							
[16] Zone 16	<input type="text"/>							
[17] Zone 17	<input type="text"/>							
[18] Zone 18	<input type="text"/>							
[19] Zone 19	<input type="text"/>							
[20] Zone 20	<input type="text"/>							
[21] Zone 21	<input type="text"/>							
[22] Zone 22	<input type="text"/>							
[23] Zone 23	<input type="text"/>							
[24] Zone 24	<input type="text"/>							
[25] Zone 25	<input type="text"/>							
[26] Zone 26	<input type="text"/>							

	T	C	T	C	T	C	T	C
[27] Zone 27	<input type="checkbox"/>							
[28] Zone 28	<input type="checkbox"/>							
[29] Zone 29	<input type="checkbox"/>							
[30] Zone 30	<input type="checkbox"/>							
[31] Zone 31	<input type="checkbox"/>							
[32] Zone 32	<input type="checkbox"/>							
[33] Keypad Alarms	<input type="checkbox"/>							
[34] Closings	<input type="checkbox"/>							
[35] Openings	<input type="checkbox"/>							
[36] Periodic Test TX	<input type="checkbox"/>							
[37] Gen Sys Tamp	<input type="checkbox"/>							
[38] System Test	<input type="checkbox"/>							
[40] Pre-Trigger	<input type="checkbox"/>							
[41] Remote Trigger	<input type="checkbox"/>							

[50] PC5108L Control Options

	Default		ON		OFF
OFF <input type="checkbox"/>	1	Camera Monitor When Disarmed	Pre-Trigger When Disarmed		
OFF <input type="checkbox"/>	2	Camera Monitor When "Away"	Pre-Trigger When "Away"		
OFF <input type="checkbox"/>	3	Camera Monitor When "Stay"	Pre-Trigger When "Stay"		
OFF <input type="checkbox"/>	4	External Dwell Control (SYNC)	Internal Dwell Control		
OFF <input type="checkbox"/>	5	Fast Dwell Time (3s)	Slow Dwell Time (6s)		
OFF <input type="checkbox"/>	6	Sync Input Is Inverted	Sync Input Is Normal		
OFF <input type="checkbox"/>	7	Images Can Be Overwritten	Images Cannot Be Overwr.		
OFF <input type="checkbox"/>	8	DLM-4L Not Used	DLM-4L is connected		

[60] Camera Test Configuration

	Default		ON		OFF
ON <input type="checkbox"/>	1	Camera 1 Test Enabled	Camera 1 Test Disabled		
ON <input type="checkbox"/>	2	Camera 2 Test Enabled	Camera 2 Test Disabled		
ON <input type="checkbox"/>	3	Camera 3 Test Enabled	Camera 3 Test Disabled		
ON <input type="checkbox"/>	4	Camera 4 Test Enabled	Camera 4 Test Disabled		
ON <input type="checkbox"/>	5	Camera 5 Test Enabled	Camera 5 Test Disabled		
ON <input type="checkbox"/>	6	Camera 6 Test Enabled	Camera 6 Test Disabled		
ON <input type="checkbox"/>	7	Camera 7 Test Enabled	Camera 7 Test Disabled		
ON <input type="checkbox"/>	8	Camera 8 Test Enabled	Camera 8 Test Disabled		

[99] Restore Module Factory Default Programming

Enter [55] in this section to restore the PC5108L to its factory default settings.



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LIMITED WARRANTY

Digital Security Controls Ltd. warrants 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 and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its factory. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond the control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

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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.