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GEMC-BSLC
BURGLARY SIGNALING LINE CIRCUIT MODULE
INSTALLATION INSTRUCTIONS

WI1648 06/10

DESCRIPTION

The GEMC-BSLC is the hardwired interface between Napco's Burglary *Signaling Line Circuit* (SLC) Points and compatible control panels. The system comprises a compatible GEMC-Series control panel, at least one GEMC-BSLC and one or more companion GEMC-BSLC Points. The Points may be space-protection devices, window/door sensors, relay outputs or other devices that report zone status and supervision information to the GEMC-BSLC.

The GEMC-BSLC supports up to 126 SLC Points. A maximum of two (2) may be used on a GEMC-Series control panel for a maximum total of 252 SLC Points. The GEMC-BSLC module is mounted inside the control panel housing and connects to the control panel via a plug-in connector. The GEMC-BSLC module continuously monitors each burglary point, updating status as changes in status are detected, and conveys this information to the control panel. **Note:** The GEMC-BSLC is for use with separately listed GEMC Series control panel (standby battery is provided by the GEMC Series control panel). Refer to WI1653 for GEMC Series installation instructions.

Note: A total of four (4) SLC / RF Receiver modules can be added to the system. Modules 1 and 2 can be either GEMC-BSLC or GEMC-FW-SLC Fire modules (mounted within the control panel enclosure), or GEMC-RECV wireless RF receivers (wired to either the control panel Burg bus or control panel Fire bus and mounted throughout the premises). Modules 3 and 4 cannot be GEMC-FW-SLC or GEMC-BSLC modules but can only be GEMC-RECV wireless RF receivers. See the GEMC-RECV installation instructions (WI1682) for programming the wireless devices into the system. **Note:** Modules must be addressed contiguously (no skipped addresses), as described in "**ADDRESSING THE MODULES**".

VERY IMPORTANT: For ANY keypad programming, the SLC board MUST be enabled in PCD-Windows Quickloader by opening the **System Assignment** screen, *RF-Receiver/SLC* tab.

SPECIFICATIONS
Electrical Ratings
Input Power:
Power Requirements: 24VDC, 55mA (standby current) + device current (provided by GEMC Series control panel).
Maximum Total Combined 24V Input Current: 590mA.
Output Power: 16.5V, 500mA maximum.
Note: Refer to PCD-Windows Quickloader download software's calculation tools for 24V standby current calculation. GEMC-XXXMB total combined 24V auxiliary standby current must be reduced by GEMC-BSLC current.
Operating Temperature: 32° to 120°F (0° to 49°C)
Dimensions W x D x H: 4.5" x 4" x 1"

DEVICE DISTANCE SPECIFICATIONS
CLASS B CIRCUITS ONLY

The GEMC-BSLC-1PT, GEMC-BSLC-4PT and GEMC-BSLC-RLY all have a maximum distance of 3000 feet using 16AWG wire for each loop home run; however, as the distance increases, fewer devices are allowed, as follows:

DEVICE DISTANCE SPECIFICATIONS		
Wire Gauge AWG	Max Length (feet) (home run)	Max Devices
22	250	126
	500	84
	750	42
18	625	126
	1250	84
	2000	42
16 or 14	1000	126
	2000	84
	2000-3000	42

In addition, consideration must be given to the location of the devices on the loop. For example, when using 16AWG wire, the maximum number of devices between 0-1000 feet is 42 when there are 42 devices at 2000 feet and 42 devices at 3000 feet for each home run.

GEMC-BSLC-PIR and GEMC-BSLC-DT are equivalent to 9 devices (and have a maximum distance of 2000 feet per home run when using 16AWG wire). **Note:** The GEMC-BSLC-RLY is equivalent to 5 devices (and have a maximum distance of 3000 feet per home run when using 16AWG wire).

COMPATIBLE BURG DEVICES

Any of the following Napco BURG points (devices) may be used with the GEMC-BSLC Module.

The following are Input devices:
- **GEMC-BSLC-4PT** - Four-point Zone Expander Module provides terminals for normally-closed external contacts for 4 zones.
- **GEMC-BSLC-1PT** - Single-point Zone Expander Module provides terminals for normally-closed external contacts for a single zone.
- **GEMC-BSLC-PIR** - PIR Motion Sensor.
- **GEMC-BSLC-DT** - Dual-Technology PIR/Microwave sensor.

The following is an Output device:
- **GEMC-BSLC-RLY** - Single-point relay module.

GEMC-BSLC MODULE INSTALLATION

Designing the System

In planning the layout of the system, give careful consideration to the wire routing distance of the 2 wire bus, the number of devices and the current requirements. Wiring distances, the number of devices and the current calculations are important to determine the gauge of the wire to be used. While planning the layout of the system, the required class and style of the SLC loop must first be determined:

- **Class A** wiring comprises a 4-wire circuit, with two wires from the control panel connecting to the devices and returning to the same control panel. A single break in a wire generates a trouble condition, with all devices remaining able to detect an alarm. **Note:** A short on the Class A loop when the system is armed will cause an alarm.
- **Class B** wiring comprises a 2-wire circuit, with two wires from the control panel connecting to the devices. A break in a wire causes a trouble condition (when system is disarmed and an alarm condition when the system is armed) and all zones past the break will annunciate a trouble and not function.

Class B

Wiring Requirements: Only the two **SLC OUT** terminals are required, wire runs may be daisy chained, home run and/or T-tapped off the main section.
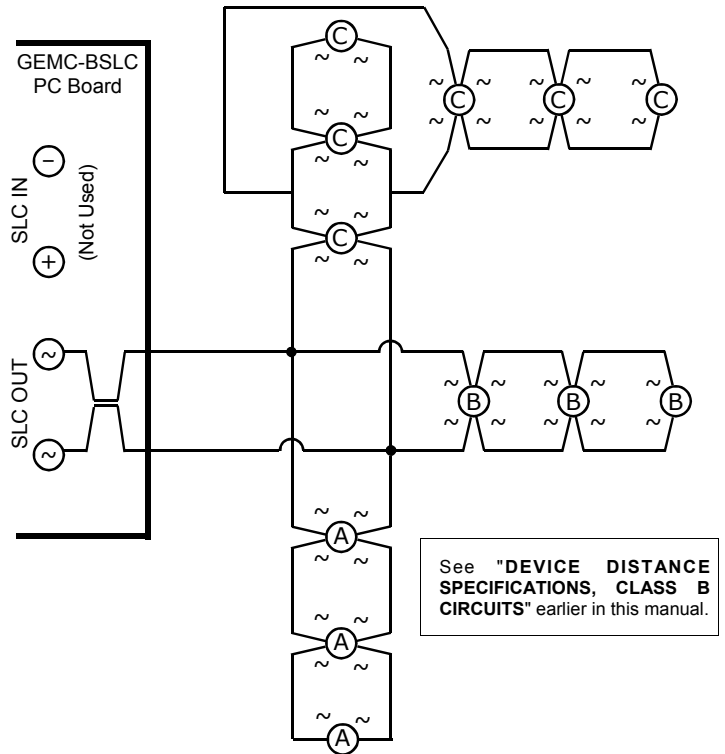
All devices are unpolarized:

Draw a layout of the system, identifying all proposed SLC device locations and the anticipated control panel location. Also include notations indicating device types and other relevant information for review by the authority having jurisdiction. The wiring gauge must be calculated using distance and device loads as shown in the list above (see "**DEVICE DISTANCE SPECIFICATIONS**"):

Class A

Wiring Requirements: Both the **SLC OUT** and **SLC IN** terminals must be daisy chained with the first device wired to **SLC OUT** and the last device wired to **SLC IN**. **Note:** Only 4-point devices (GEMC-BSLC-4PT) fully comply with Class A wiring specifications; single-point devices cannot have two wires in the same terminal, therefore they are unable to report alarms if an open occurs in either wire that runs from the device to the loop (although a trouble will be generated). See Fig. 2 for this type of single-point device wiring. **Important:** *Both **IN** and **OUT** terminals must be wired with polarity observed, as shown in the diagrams below.*

MOUNTING AND WIRING THE MODULE

There are two mounting locations in the control panel housing for the GEMC-BSLC module(s). If the maximum of two GEMC-BSLC modules are connected to the control panel, each module must be individually addressed (via the "ADDR" dip switches) to allow the control panel to identify each module correctly. The unit is to be housed in an attack resistant enclosure such as the GEMC-HSKIT1425 or GEMC-HSKIT1416 employed with the GEMC-TAMPERKIT. Refer to the GEMC-Series installation instructions (WI1653) for mounting locations and complete mounting instructions for the enclosure type used in your installation.

See "**DEVICE DISTANCE SPECIFICATIONS, CLASS B CIRCUITS**" earlier in this manual.
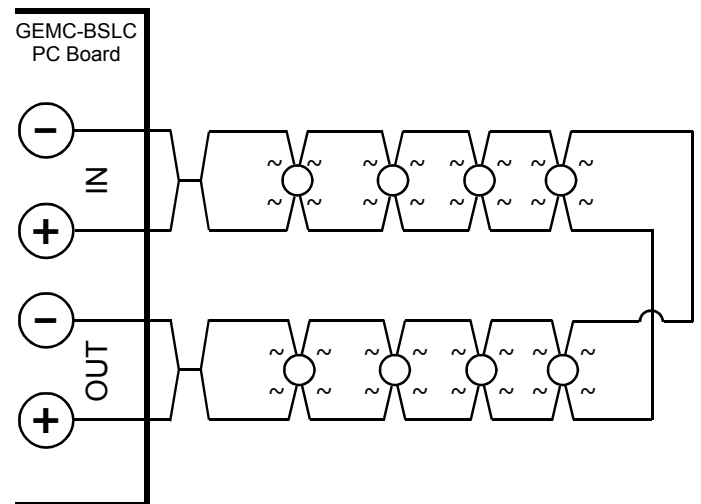
GEMC-BSLC Loop Class B wiring example

Fig. 1: BSLC Loop Class A (4 point) wiring example (IN and OUT GEMC-BSLC PC Board polarity observed)
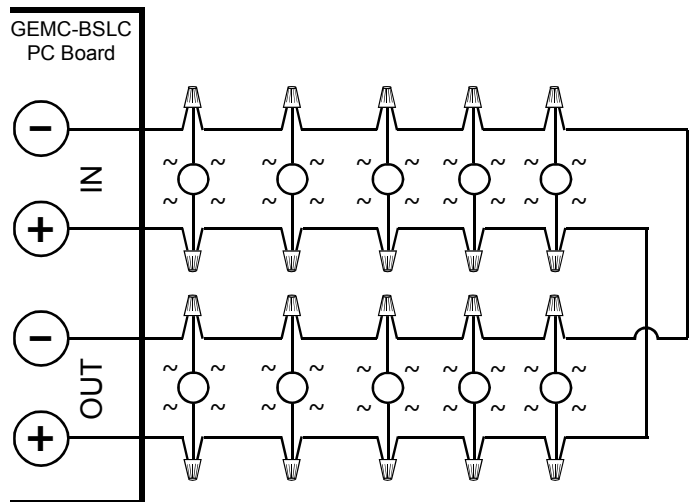

Fig. 2: BSLC Loop Class A (single-point) wiring example (IN and OUT GEMC-BSLC PC Board polarity observed)

ADDRESSING THE MODULES

Before mounting the GEMC-BSLC module inside the control panel enclosure, orient the GEMC-BSLC module so that the "ADDR" dip switches and "RELAY" dip switches are located on the right side of the PCB board, and set the switches as follows:

One GEMC-BSLC Module Used in the System

If only one GEMC-BSLC module is used inside the enclosure, the #1 "ADDR" dip switch must be pushed up and the #2 must be pushed down.

The module is connected to the Gemini C-Series control panel motherboard via its supplied 4-wire harness. Connect this harness between the motherboard receptacle SLC1 (located on the bottom right of the motherboard) and the GEMC-BSLC module receptacle JP1 (located on the top right of the GEMC-BSLC module).

If using Output Devices, the RELAY dip switches must be set. See "**MAPPING THE BURG OUTPUT DEVICES**" further in this manual.

Two GEMC-BSLC Modules Used in the System

If a second GEMC-BSLC module is used inside the enclosure, the second GEMC-BSLC module's #1 "ADDR" dip switch must be pushed down and the #2 must be pushed up.

The second module is also connected to the Gemini C-Series control panel motherboard via its individually supplied 4-wire harness. Connect this harness between the motherboard receptacle SLC2 (located on the bottom right of the motherboard) and the GEMC-BSLC module receptacle JP1 (located on the top right of the GEMC-BSLC module).

If using Output Devices, the RELAY dip switches must be set. See "**MAPPING THE BURG OUTPUT DEVICES**" further in this manual.

Physically install the module(s) as described in WI1653. Connect the 9SLCCBLASSY four wire harness into the upper right connector of the SLC board. The other end of the 9SLCCBLASSY four wire harness must be inserted into the appropriate SLC jack number (1 or 2) that corresponds to the address DIP switch selected on the SLC board. **Note:** Some items (such as mounting brackets) may be pre-installed at the factory. To ensure all hardware and component mounting holes are suitably aligned, loosen and re-tighten all pre-installed screws as needed.

DEVICE TYPES

All of the devices that can be used with the GEMC-BSLC module (listed on page 1) can be separated into two distinct categories: **Input** Devices and **Output** Devices. Each type requires a different installation procedure.

The following are INPUT devices:
- **GEMC-BSLC-4PT**
- **GEMC-BSLC-1PT**
- **GEMC-BSLC-PIR**
- **GEMC-BSLC-DT**

The following is an OUTPUT device:
- **GEMC-BSLC-RLY**

All devices must be wired to a GEMC-BSLC module. All Zone Input Devices must be "mapped" or "associated" to a zone on the control panel. Similarly, the Output Device (GEMC-BSLC-RLY) must be "mapped" to an external output numbered 1 through 88. In addition:

- Zone input devices can be mapped using the keypad (only the first 96 can be programmed via the keypad) or with PCD-Windows Quickloader Download software.
- Output Devices (GEMC-BSLC-RLY) can ONLY be mapped via PCD-Windows Quickloader download software. See "**MAPPING THE BURG OUTPUT DEVICES**" further in this manual.

MAPPING INPUT DEVICES WITH THE KEYPAD

Burglary SLC devices are mapped to a zone in the control panel with a six-character ID similar to wireless transmitters. This six-character ID is a combination of numbers and/or letters used by the system to identify and associate ("map") each device to one of the system zones in the control panel. This ID is found on a sticker located on the circuit board of the device.

You can enroll input devices using one of two methods: "Manual Entry" method or "Quick Enroll" method, as explained in the sections that follow

"MANUAL ENTRY" METHOD

To map (associate) an input device using the keypad, proceed as follows:

1. Enter the Dealer or Keypad Program Code, and press **ENTER** to unlock the keypad.

2. Press **MENU** repeatedly until "CF DEALER PROG MODE" appears, then press **ENTER**.

3. Press **NEXT** repeatedly until the following appears:

   ```
   Zn# DevID+CS P R
   01- 000000:0-0 0
   ```

   Notice the cursor is located under the first digit. The digits displayed on the second row of the keypad are:

   ```
   01-000000:0-0 0
   ```
   (Zone Number) – (Device ID) : (Checksum) – (Point Number) (Receiver Number)

4. **Change the Zone Number** to the zone you wish to associate with the selected input device. With the cursor located under the first digit, press the two-digit number of the zone. For example, if you want to select zone 9, press `0` `9P`.

5. **Enter the Device ID and Checksum** located on a label placed on the device. Press **MENU** until the cursor is located under the first character of the Device ID, then enter the 6 characters of the Device ID. For letters, use the following key combinations:

   - Press **ACK.** `0` for "A" or "zero"
   - press **ACK.** `1` for "B"

- press **ACK.** ☐ 2 ☐ for "C"
- press **ACK.** ☐ 3 ☐ for "D"
- press **ACK.** ☐ 4 ☐ for "E"
- press **ACK.** ☐ 5 ☐ for "F"

After entering the 6 characters of the Device ID, the cursor automatically jumps to the Checksum location. Enter the Checksum indicated on the device label. The cursor now jumps to the Point Number.

7. **Enter the Point Number.** Enter a "1" if a GEMC-BSLC-1PT, GEMC-BSLC-PIR, GEMC-BSLC-DT or the first zone of a GEMC-BSLC-4PT. Enter a "2" if the second zone of a GEMC-BSLC-4PT. Enter a "3" if the third zone of a GEMC-BSLC-4PT. Enter a "4" if the fourth zone of a GEMC-BSLC-4PT. The cursor now jumps to the Receiver Number.

8. **Enter the Receiver Number**. Enter the digit of the GEMC-BSLC module as indicated by the "ADDR" dip switches located on the right side of the GEMC-BSLC module PCB board as described in "**ADDRESSING THE MODULES**". Enter a "1" if associating the device to the GEMC-BSLC module addressed as "1", or enter a "2" if associating the device to the GEMC-BSLC module addressed as "2".

When finished, press ⌷ to save. If the Device ID changes back to all zeros, the device will NOT be mapped and you must re-enter the Device ID / Checksum / Point as needed. *After pressing **ENTER** and the numbers do NOT change to all zeros, the Device ID has been mapped correctly.*

When finished entering all devices, press **NEXT** (INTERIOR)

to continue within the Easy Program Menu; to exit the Easy Program Menu and enter Direct Address Program Mode, press **RESET**. To exit Direct Address Program Mode, and return to normal operation, press **RESET** again.

"QUICK ENROLL" METHOD
If the SLC system is already installed and wired to the panel, SLC module points can be programmed automatically ("enrolled"). **Note:** Enroll a single-point device by merely powering it up, then press and hold the tamper button on the device for 1 second, then release. **Note:** Wireless / SLC devices can be programmed via the keypad or enrolled up to Zone 96.

1. Enter the Dealer or Keypad Program Code, and press **ENTER** to unlock the keypad.

2. Press **MENU** repeatedly until "CF DEALER PROG MODE" appears, then press **ENTER**.

3. Press **NEXT** repeatedly until the following appears:

```
Zn# DevID+CS P R
01- 000000:0-0 0
```

Notice the cursor is located under the first digit. The digits displayed on the second row of the keypad are:

```
01-000000:0-0 0
```
(Zone Number) – (Device ID) : (Checksum) – (Point Number) (Receiver Number)

4. **Change the Zone Number** to the zone you wish to associate with the selected input device. With the cursor located under the first digit, press the two-digit number of the zone. For example, if you want to select zone 9, press ☐ 0 ☐ 9P ☐.

5. Press **SILENCE** to enter Enroll Mode. The red and green LED's on the GEMC-BK1 keypad flash and display as shown below.

```
Zn# DevID+CS P R
01-ENROLL:A-,
```

6. Open the loop of the point that is to be programmed.

Multi-Zone Points Point Transmitters can be mapped to successive zones simultaneously (Example 1) or to selected point by point. (Example 2).

EXAMPLES
Example 1: A GEMC-BSLC-4PT device with the first two of four zones used has the ID Code number B10078. Map the four points to Zones 11 and 12, 13 and 14 respectively.
1. Enter the Enroll mode as described in step 2 above.
2. Enter Zone "11".
3. Open the loops of point zone 1 and 2, 3 and 4.
4. Press and hold the tamper button on the device for 1 second, then release. The keypad beeps twice to indicate that four zone points have been learned.

- Device B40078, point zone 1 will be mapped to Zone 11
- Device B40078, point zone 2 will be mapped to Zone 12
- Device B40078, point zone 3 will be mapped to Zone 13
- Device B40078, point zone 4 will be mapped to Zone 14

The keypad displays Zone 14, the last zone enrolled.

Example 2. A 4 zone point module has the ID code number B47613. Map point 1 to zone 6, point 2 to zone 9, point 3 to zone 10 and point 4 to zone 11.
1. Enter the Enroll mode as described above.
2. Enter zone 006.
3. Open point zone 1 loop (be sure all other points are closed).
4. Press and hold the tamper button on the device for 1 second, then release. The keypad beeps once to indicate that one point has been programmed. (Point 1 will be mapped to zone 6).
5. Enter zone 09.
6. Open point 2 loop (be sure all other points are closed).
7. Press and hold the tamper button on the device for 1 second, then release. The keypad beeps once to indicate that one point has been programmed. (Device B47613, point 2 is zone 9).

8. Enter zone 10.
9. Open point zone 3 loop (be sure all other points are closed).
10. Press and hold the tamper button on the device for 1 second, then release. The keypad beeps once to indicate that the point has been programmed. (Device B47613, point 3 is zone 10).
11. Enter zone 11.
12. Open point zone 4 loop (be sure all other points are closed).
13. Press and hold the tamper button on the device for 1 second, then release. The keypad beeps once to indicate that the point has been programmed. (Device B47613, point 4 is zone 11.)

MAPPING DEVICES WITH PCD-WINDOWS

OVERVIEW

ALL devices can be mapped using PCD-Windows Quickloader download software.

In addition, the physical wiring can be performed before or after PCD-Windows is programmed.

Remember, what makes using PCD-Windows so convenient and efficient is that all data can be entered and saved within PCD-Windows even before visiting the installation site. If you wish to perform all wiring of the GEMC-BSLC devices before the system is programmed, proceed to the section "**WIRING**", below. If you wish to enter the SLC data to PCD-Windows before wiring, go to the section "**PCD-WINDOWS**", below.

WIRING

All devices have two non-polarized terminals for the Burg SLC Loop connection. See Class A and Class B wiring examples earlier in this manual and the installation instructions for each device for more information.

PCD-WINDOWS

1. Open PCD-Windows and if creating a new Account, name the Account, select "**GEMC**" for the Napco Panel, select the **Product Type** as:
   - Burg
   - Burg / Commercial Fire (Local)
   - Burg / Commercial Fire (Reporting)

   Enter the **Panel Configuration**:
   - 255 Zones with 4 Panel NAC's
   - 128 Zones with 4 Panel NAC's
   - 96 Zones with 2 Panel NAC's
   - 32 Zones with 2 Panel NAC's

   Enter the Master Security Code found on a rectangular-shaped sticker labeled "Master Security Code" located on the control panel PC motherboard. Enter new digits for the Download Security Code and Dealer Keypad Program Code as desired.

2. PCD-Windows must first be informed that the GEMC-BSLC module exists and to look for it in its correct address location as set by its dip switches and its plug/connector. Click the **System Assignment** button; in the **System Assignment** screen, click the *RF Receiver / SLC* tab. In Address 1, click the **SLC Burg** radio button. If a Class A style wiring to the SLC device was used, check the **Class A** checkbox. If Class B style wiring to the SLC device was used, uncheck the **Class A** checkbox. Configure Address 2 in the same manner, if needed. Click **OK** to save.

3. In the **Workspace** (press Ctrl + Shift + W), click **Zone Assignment** (press Ctrl + Shift + Z). Each row represents a numbered zone; select a zone, and configure each column as needed (select an Area, define the Zone Type, etc.). **Note:** Burglary Zones cannot be assigned to zones 1-8 but only to zones 9 through 255. In addition, Burglary Zones may only be assigned to Areas 2-8, as entered in the **Area** column.

Every functioning zone, including those zones mapped to Burglary SLC devices, must be configured and assigned to at least one area. In addition when reporting, every zone must have an Advanced Code associated with it. There are other option columns that may be selected but are not required. To configure the Zone correctly, double-click the **Configured** column in the **Zone Assignment** screen, and the **Zone Features** screen opens. Typical selections are: **Auto Bypass Re-Entry**, **Selective Bypass**, **Keypad Sounder on Alarm**, **Burg Bell**, **Entry/Exit 1** and **Abort Delay**.

At this point, each device may either be directly mapped to a zone using PCD-Windows Quickloader or may be learned at the installation site after installation.
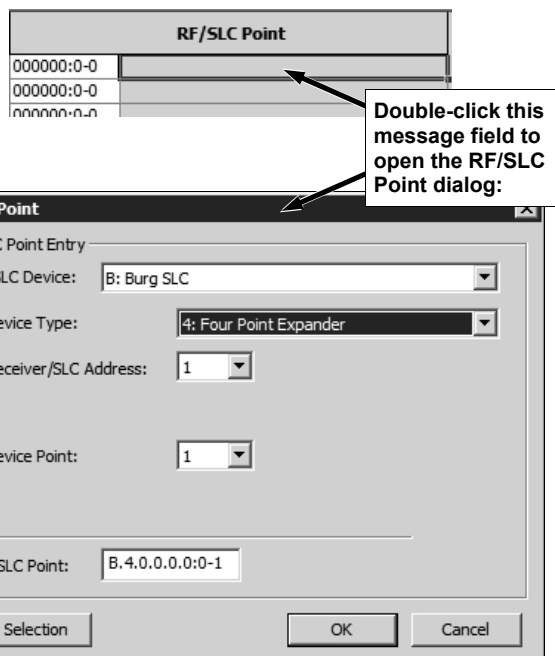
DIRECT ENTRY

In the **Zone Assignment** screen, the 6-character ID for each device is entered into the **RF/SLC Point** column located at the far right of the **Zone Assignment** screen (you may need to scroll to the right to see this column).

The **RF/SLC Point** column displays the series of 6 zeros, followed by a colon ("**:**") and two additional zeros separated by a dash ("**–**"), as shown:

```
"000000:0-0"
```

Burglary SLC devices are mapped to a zone in the control panel with a six-character ID similar to wireless transmitters. This six-character ID is a combination of numbers and/or letters used by the system to identify and associate ("map") each device to one of the system zones in the control panel. This six-character ID is found on a sticker located on the circuit board of the device.

For each point, select the zone number (row) to which the point will be mapped. Simply click to highlight the first zero, and type the 6-character ID for the device to be assigned to that zone. You can also open the **RF/SLC Point** dialog box that allows you to select each element of the 6-character ID by double-clicking the message field to the right of the **RF/SLC Point** column, as shown:

RF/SLC Point
000000:0-0
000000:0-0
000000:0-0

Double-click this message field to open the RF/SLC Point dialog:

RF/SLC Point

RF/SLC Point Entry

RF/SLC Device: B: Burg SLC

Device Type: 4: Four Point Expander

Receiver/SLC Address: 1

Device Point: 1

RF/SLC Point: B.4.0.0.0.0:0-1

Clear Selection   OK   Cancel

The **RF/SLC Point** dialog box allows you to click pull-down menus and scroll buttons to input the data.

Note: The first character is defines the **RF/SLC Device**. From the pull-down, always select "B: Burg SLC" for devices wired to a GEMC-BSLC module.

When finished entering data, click the **OK** button to save or click **Cancel** to exit without saving. In PCD-Windows, you can always click **File**, **Save Work** to update and retain all data previously entered.
Repeat for all other devices and zones, and remember to save your work.

OTHER CONSIDERATIONS

Before downloading the data from PCD-Windows to the control panel, be sure the following conditions exist:
- The GEMC-BSLC module must be connected to the correct SLC jack on the Gemini C-Series control panel motherboard via its supplied 4-wire harness, and the "ADDR" dip switches are set correctly (see the section "**MOUNTING AND WIRING THE MODULE**").
- A GEMC-BK1 keypad is connected to the control panel keypad bus, and the system control panel is powered up. Ensure this GEMC-BK1 keypad is configured in the **Keypad Assignment** screen as **Keypad 1** (for Burglary-only systems), and its **Type** is selected as "Burglary". Note that upon power up, some installations may cause troubles to appear. You can silence the system trouble audibles by pressing **ENTER**; then press **ACK.** to silence the troubles.

To ensure the control panel is free of errors, an "Error Check" of the system is performed when downloading the panel program (from PCD-Windows Quickloader software to the control panel) thus ensuring the new programming does not conflict with any existing programming in the control panel.

To Download: If local downloading, connect the computer to a PCI2000 Computer Interface module, then connect the PCI2000 to the RJ-45 receptacle located on the bottom left of the control panel PC board. **Note:** Local downloading can also be performed with a PCI-MINI computer interface cable. **Note:** The RJ-45 receptacle used by the system is selected via PCD-Windows Quickloader using the **Communication** screen.

Click the **Local Communication** button to start the download to the panel process.

After completing the PCD-Windows download process, the control panel begins to download data to the GEMC-BSLC module(s) to permit communication to devices that may be already wired to the module or to devices that may be added later. After this data transfer, the keypad will display "PLEASE WAIT SYSTEM INITIALIZING" indicating that the system is busy while the GEMC-BSLC module(s) are configuring any existing SLC devices wired to the SLC loop (this process may take several minutes). **Note:** The **Trouble** keypad icon will appear.

MAPPING THE BURG OUTPUT DEVICES

The GEMC-BSLC-RLY "Non-Polarized" Single Point Relay Module is a low-current Form-C relay interface accessory. The GEMC-BSLC-RLY provides a dry contact relay output for controlling bells, door latches, lights, strobes and other similar low-voltage Burglary and Home Automation devices.

A maximum of 126 devices (of both input or output devices) can be connected to each GEMC-BSLC circuit board. Of these 126 devices, a maximum of 88 devices can be GEMC-BSLC-RLY output devices (up to 88 GEMC-BSLC-RLY units may be used with any one Gemini C-Series control panel). Based on the available current the GEMC-BSLC provides, up to 44 GEMC-BSLC-RLY modules may be used with any one GEMC-BSLC.

The first 40 external outputs (1-40) of the Gemini C-Series control panels are supervised Form-C relay contacts (the position of the relay is supervised, but the external relay output wiring is not supervised for opens or shorts). Due to relay supervision, reporting and disabling options, *we recommend these first 40 outputs be reserved for controlling Fire devices*. Devices addressed as 41-88 are not supervised (do not have a local or remote trouble indication) and thus should be reserved for non-Fire device use only. See WI1723 for the GEMC-BSLC-RLY installation instructions.

PCD-WINDOWS

Use PCD-Windows Quickloader download software to program the external output(s) as follows:

1. Determine which output numbers (01-88) you wish to use to map to these output devices (in 11 Groups of 8 outputs each).

2. Each module must be individually addressed (via the "ADDR" dip switches) to allow the control panel to identify each module correctly. Therefore, determine the address

number of the particular GEMC-BSLC board to which you will wire the outputs.

3. PCD-Windows Quickloader must first be informed that the GEMC-BSLC module exists and to look for it in its correct address location as set by its "ADDR" dip switches and its plug/connector. Click the **System Assignment** button; in the **System Assignment** screen, click the *RF Receiver / SLC* tab. In Address 1, click the **SLC Burg** radio button. If a Class A style wiring to the SLC device was used, check the **Class A** checkbox. If Class B style wiring to the SLC device was used, uncheck the **Class A** checkbox. Configure Address 2 in the same manner, if needed. Click **OK** to save.

4. Use PCD-Windows Quickloader to program the board number associated with the output numbers selected in step 1. In the **NAC/Output Assignment** screen (*NAC/Output Assignments* tab), when selecting the "Board Type" for the selected "**Output #**", select either "**Burg Output on Burg SLC 1**" or "**Burg Output on Burg SLC 2**".
To enable Reverse Polarity, check the **Reverse Polarity** checkbox for each selected **Output #**. When Reverse Polarity is enabled, *the output is normally energized; upon activation the output de-energizes*.

5. In the *NAC/Output Events* tab, program the external output to activate upon a certain event, alarm type or condition.
The output remains activated until:
- a programmed time-out duration is reached (as specified in the **Timeout** and **min.sec.** columns), or
- a keypad located in a specified area is disarmed with a Burg User Code valid for that area (as specified in the **Area Disarm** column).

If Reverse Polarity is enabled for an output that activates upon an event, *the output will be normally energized until the event occurs, then the output de-energizes.*

GEMC-BSLC-RLY
INSTALLATION INSTRUCTIONS
For complete GEMC-BSLC-RLY installation instructions, see WI1723. The following is a list of the basic tasks that must be performed:

- Wire the relay to the correct GEMC-BSLC circuit board, ensuring the GEMC-BSLC relay board dip switches are configured to reflect its PCD-Windows Quickloader programming.
- Use a small screwdriver to select the External Output Number (01-88) on the GEMC-BSLC-RLY dial switches marked "**10's**" and "**1's**" that were programmed with PCD-Windows Quickloader. **Note:** The "**10's**" dial is the tens digit and the "**1's**" dial is the ones digit.
- Run the wiring from the device you want to control through the access slots in the GEMC-BSLC-RLY rear case and connect to the appropriate terminal block screws (NO/C/NC).
- When finished, test the devices for correct operation.

BURG SLC SYSTEM TROUBLES
The following system-trouble codes displayed at the keypad(s):

Point Module SLC Troubles
Note: Also displayed with the trouble code are the zone number ("NN") to which the point is mapped and the module's identification number.

E06: SLC Module Response Trouble. NN = SLC Module address (1-4). Check connection to SLC module; check Receiver wiring is on correct bus and/or correct SLC connector SLC1 or SLC2; check to make sure address jumper on SLC Module is correct. Make sure no duplicate addresses are used. For Burglary keypads, NN = receiver number (1-4).

E14: NAC or Relay board response failure. NNN = Relay board number (address). Check to make sure correct Relay group address jumpers are set (no duplicates) and GEMC-RM3008's and GEMC-OUT8's are wired to the correct (Burg) bus. Check to ensure correct relay group dip switch settings.

WL TAMPER - **E15-NN.** Tamper condition indicates that an SLC device case is open . Re-install cover.

E16: Wireless RF Receiver or Burg SLC Trouble. NN = Receiver/SLC Module address (1-4). Either a Receiver is receiving a constant conflicting signal or noise that may interfere with receiving signals, or a GEMC-BSLC module has detected a short on the bus (class A or B) and/or an open on a class A loop. Consider moving Receiver location or repairing SLC loop.

E35: Supervised output trouble. Check the following:
1. NAC's A-D open or short on output.
2. GEMC-SLC-SOM has open or short.
3. GEMC-SLC-SOM is not powered correctly.

"NN" is the external output number.

For Burglary systems, a GEMC-BSLC-RLY is not responding or its relay is not working correctly.

NAPCO LIMITED WARRANTY

NAPCO SECURITY SYSTEMS, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for *thirty-six months* following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges.

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In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation charges.

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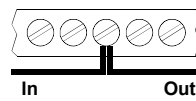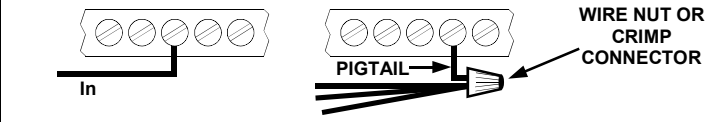
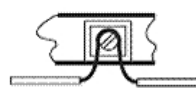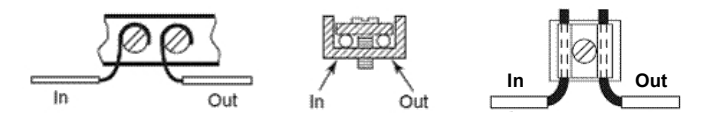NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.
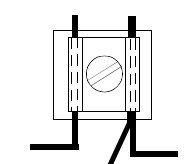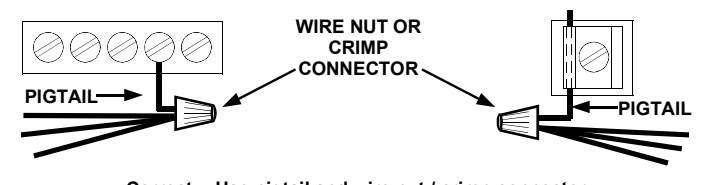
NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

IMPORTANT WIRING METHODS

For single-conductor terminal blocks (like the type shown at left), to terminate more than one conductor to a terminal, use the wiring methods shown at right:

In   Out
Incorrect

In

PIGTAIL

WIRE NUT OR CRIMP CONNECTOR

Correct -- Single incoming and/or pigtail with wire nut / crimp connectors

For "barrier" type terminal blocks (like the type shown at left), to terminate two conductors to a terminal, use the wiring methods shown at right:

Incorrect

In   Out   In   Out   In   Out

Correct -- Separate incoming and outgoing conductors

To terminate more than two conductors or conductors of different wire sizes to a terminal, use the "pigtail" type wiring method as shown at right. Use insulated wire for the pigtail, and firmly secure the conductors to the pigtail using an appropriate wire nut or crimp connector for the number and gauge of conductors used.

Incorrect

WIRE NUT OR CRIMP CONNECTOR

PIGTAIL   PIGTAIL

Correct -- Use pigtail and wire nut / crimp connector