

Installation and Programming Guide
SS470 Auxiliary Siren-Strobe
SSC1000 Auxiliary Siren-Strobe

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1 Regulatory Notices

1.1 FCC Rules Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by InGrid, Inc. can void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If interference generated by this unit is suspected, call Brink's Customer Care at 1-800-445-0872.

If this equipment does cause harmful interference to radio or television 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 radio/television antenna;
- Move the television or receiver away from the unit.
- Plug the unit and the TV/radio receiver into different outlets, i.e. not on the same circuit breaker.
- Contact Brinks Home Security or an experienced TV/Radio technician for additional suggestions.

Part Number SS470; FCC ID: S9PSS470
Part Number SSC1000; FCC ID: S9PSS470

2 InGrid Component Installation and Registration

Important Note

Please read and fully understand the BHS-i100 User's Manual before reading this manual or attempting to install the system. The User's Manual describes the system's features, functions, and user interface requirements in great detail. That information is not repeated in this manual

2.1 Components

The SS470 Auxiliary Siren-strobe is designed for residential applications. It is intended to be used as a supplementary audible and visual signaling device when used with the BHS-i100 Home Security System. It communicates using encrypted two-way wireless signals. The only wired connection is power via a plug-in power supply. A BHS-i100 system can contain the following compatible components:

<u>Grid Extenders</u>	<u>Model Number</u>
Brinks Keypad	BK410
Grid Extender	SE430
Brinks Programmer	BP420

<u>InGrid Sensors</u>	<u>Model Number</u>
Window/Door Sensor	IS440
Keychain Remote	KF460
Auxiliary Siren	SS470

<u>Ademco Transmitters</u>	<u>Model Number</u>
Glass Break Detector	5853
Motion Detector	5800
Smoke Detector	5808LST

Note: Compatibility between models KF460, 5816, and the BP420 has not been evaluated by UL.

2.2 Maximum System Capacity

The maximum number of Auxiliary Siren-Strobe devices in a single system is 4. The Auxiliary Siren-Strobe is intended to be used only with the BHS-i100 system. Each BHS-i100 system must contain at least 1 Brinks Keypad and at least 1 Signal Extender to support the addition of a SS470 Auxiliary Siren-Strobe.

2.3 Wireless Communications Range

There are two types of wireless communications used in a BHS-i100 system:

Grid Extender to Grid Extender – This communication operates at 2.4 GHz. To avoid the potential for conflict with WiFi networks, it is good installation practice to locate any Grid Extender at least 10 feet from a WiFi router that a customer may be using. The Grid Extenders installed in a single customer's home, garage, and shed work together in a redundant grid network. If you were to draw a circle around all of the Grid Extenders in a single grid network, the maximum diameter of that circle must be less than 300 feet. The InGrid system will ensure installation within the acceptable range.

Siren-Strobe to Grid Extender – This communication operates at 345 MHz and 2.4 GHz. Communication from the InGrid SS470 to Grid Extenders is two-way encrypted wireless. SS470's may communicate to any Grid Extender. The maximum distance from a SS470 to the closest Grid Extender must be less than 30 feet. Proper installation of the Grid Extenders and SS470 is determined by using the Installation and Registration Process.

2.4 Install the SS470 Siren-Strobe

The SS470 Siren-Strobe must be mounted in a dry, clean location.

The SS470 Auxiliary Siren-Strobe should be wall-mounted at a height that provides the best possible audible and visual alarm signaling. The BHS-i100 supports up to 4 SS470's.

2.4.1 Wiring & Mounting the Siren-Strobe

Note: You must be free of static electricity before handling the Keypad. Touch a bare metal surface or wear a grounding strap to discharge yourself.

The SS470 is designed to be mounted on drywall or wood. Mounting on metal studs, or any type of brick, stone, or concrete block will likely reduce the wireless range of the SS470.

Note: Do NOT use an outlet that is controlled by a switch.

Location

Select a location on a wall that is accessible to an outlet that is not controlled by a switch.

Mount at height convenient for use, typically 55 to 60 inches above the floor. A wire must be run from the SS470 to the Power Supply, so choose the location wisely to minimize the difficulty of running the wire.

The mounting plate must be used for the SS470 to operate properly.

Mounting

1. Hold mounting plate level up to the wall where the SS470 will be mounted and mark area for wires to run through wall.

Use the mounting plate as a template for making a hole for running wires to the power supply

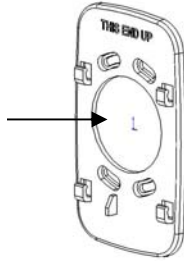


Figure 1

2. Make hole in wall. Run wires (18 gauge stranded wire) from the mounting location of the SS470 to the outlet where the Power Supply will be mounted.
3. Mount the SS470 mounting plate to the wall using #8 drywall screws.
4. Attach the wires to the power terminals of the SS470. If the wire is color coded, note the attachment color used for the positive terminal of the SS470. This same color wire should connect to the positive terminal of the Power Supply. The SS470 has a protection circuit in case the wires are connected with the wrong polarity. Later, when the Power Supply is mounted, if the Siren-Strobe does not receive power from the Power Supply, switch the polarity of the wire connections on the Power Supply.
5. Snap the SS470 onto the back plate, by inserting the tabs on the mounting plate into holes on the back of the Siren-Strobe. If any pressure or difficulty is encountered, do not apply force. Investigate the routing of the wires and the alignment of the SS470 and the mounting plate and try again.

2.4.2 Wire the Power Supply

Note: You must be free of static electricity before handling the Power Supply. Touch a bare metal surface or wear a grounding strap to discharge yourself.

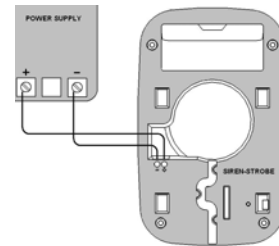
Use the Brinks BS450 Power Supply to provide power to the Auxiliary Siren-strobe.

BS450 Specifications:
 Input: 120V 60Hz
 Output: 5VDC 850mA

1. Select an outlet on which to mount the Power Supply. Choose an outlet that is close to the location where the Keypad is mounted.
2. Find the circuit breaker or fuse controlling the outlet to which the Power Supply will be mounted and disconnect power to the outlet by turning the circuit breaker off or removing the fuse.
3. Remove the center screw attaching the outlet cover to the outlet.
4. Attach the wires to the Power Supply terminals, noting the polarity of the wire colors (if any). The Power Supply generates a polarity sensitive +5 volts DC. If the Keypad

- does not receive power from the Power Supply, switch the polarity of the wire connections on the Power Supply.
5. The Power Supply contains a tab that protrudes above the Power Supply. The Power Supply must be mounted so that the hole in the tab is aligned with the center screw hole of the outlet cover. This may require changing the vertical orientation of the Power Supply in order to find the direction which permits the hole in the tab to align with the center screw hole of the outlet cover.
6. Insert the outlet screw through both the tab and the center screw hole of the outlet cover, and tighten. The tab and the cover should be snug against the outlet, but not so tight that it causes flexing or stress on either the tab or the outlet cover.
7. Reconnect power to the outlet by turning the circuit breaker on or replacing the fuse.

Note: Connect the transformer using 18 AWG or larger wire.



Wiring Diagram SK-WIR-002 for the BS450 Power Supply

The power supply is intended to be correctly orientated in a vertical or floor mount position.

2.4.3 Install the Battery

NOTE To avoid risk of shock or fire, install only InGrid IG120 battery.

Install the InGrid IG120 rechargeable battery pack into the Siren-Strobe and allow charging for at least 24 hours to ensure that it is fully charged.

1. Connect the battery pack to the Siren-Strobe connector in the battery compartment. Match the battery connector's polarity to the Siren-Strobe polarity. Push the battery pack connector and Siren-Strobe connector together until they click into place.
2. Make sure you have a good connection by gently pulling on the battery wires.
3. Route the wires under the battery pack and place the battery pack in the compartment

2.5 Install/Learn Auxiliary Sirens

Occasionally, one or more Auxiliary Sirens are needed. This may occur if the layout of the home prevents the Keypad sirens from adequately reaching all areas of the home or if residents suffer from hearing loss. Up to four (4) Auxiliary Sirens may be installed on a system. If an Auxiliary Siren is necessary, it should be mounted in a location that will enable all occupants of the household to hear the siren.

2.5.1 Learn The Auxiliary Siren

- Using the Programmer, navigate to "Learn Devices", then "Learn Auxiliary Siren". Registration will be enabled for 60 seconds only. The Programmer will display:

```
Install Siren on  
Mounting Bracket  
To Register
```

- Install the Siren on the mounting bracket. This will set the tamper switch and learn the siren. If successful, the Programmer will display:

```
Synchronizing  
Please Wait
```

```
Please Hold Test  
Button for 3 Sec's to  
Complete Registration
```

If successful, continue to step 3.

If unsuccessful, the programmer will display:

```
Error: No Siren  
Detected  
Press ENTER  
To Continue
```

- Press and hold the test button on the siren for 3 seconds.

If the Auxiliary Siren fails to register within 60 seconds, the Programmer will leave registration mode automatically. If a system detects two registration bursts during the Auxiliary Siren registration mode it will not register either Auxiliary Siren and the Programmer will leave registration mode automatically.

The registration must be confirmed by pressing ENTER.

If successful the Programmer will then display:

```
External Siren  
REGISTERED  
Press ENTER  
to continue
```

If unsuccessful, the Programmer will then display:

```
Siren  
NOT REGISTERED  
Press ENTER  
to continue
```

If the Auxiliary Siren fails to qualify, the Programmer will return to the "Learn Devices" menu.

- If the Auxiliary Siren successfully qualifies, the Programmer will display:

```
Assign Siren to  
Siren #1?  
1=YES      2=NO
```

- The process may be repeated until all Auxiliary Sirens are registered.

2.5.2 Replacing Auxiliary Siren

To replace a defective auxiliary siren:

- Install the new Siren-strobe, use **Advanced Menu | Device | Auxiliary Siren | Choose Device | Replace Siren** to configure the new auxiliary siren the same way the existing auxiliary siren was configured. Refer to section 2.5.5

2.5.3 Auxiliary Siren Does Not Sound

Condition: The siren is malfunctioning.

Indications: The siren does not sound when or as it should.

Possible causes:

- No AC power to the siren.
- No battery in the siren.
- The siren was not learned into the system.
- The system is improperly programmed.

Solutions:

- Verify AC power connections to the siren. Press the test button on the siren to verify sound and/or strobe.
- Verify that the siren is listed in the **Advanced | Device | Auxiliary Siren Menu**.
- Verify that the system is programmed as follows:
 - the alarm cadence is correct;
 - the alarm cutoff time is correct;
- If these solutions are not effective, replace the siren.

2.5.4 Setting Options

The Siren-strobe may be configured with System Level Options and Device Level Options.

System Level Options:

Using the programmer, enter the advanced menu and select Global. In the Global menu, select System. There will be two System Level Options to be configured:

Strobe Enable

Default value: No

Select Yes -- will enable the strobe for all devices on the system.

Strobe Latching

Default value: No – the strobe stops flashing when the siren stops sounding.

Select Yes -- the strobe continues flashing when the siren stops sounding.

Device Level Options

Using the programmer, enter the Advanced Menu and select Device. In the Device Menu, select Auxiliary Siren. Select the Siren (#1 - #4) to be configured. There will be 6 Device Level Options to be configured for each Siren installed on the system.

Enable

Default value: Yes – enables the device
Select No – disables the device

Assign Name

Default value: "External Siren"
Use key pad to change name

Chime Tone Enable (System door chime mode must be enabled)

Default value: Yes – allows door chime to play
Select No – chime will not play

Exit Tone Enable

Default value: Yes – tone plays during exit delay
Select No – no tone during exit delay

Entry Tone Enable

Default value: Yes – tone plays at Siren until code is entered
Select No – no tone at Siren during code entry

Alarm Tone Enable

Default value: Yes – Siren sounds during alarm
Select No – Siren does not sound during alarm

2.5.5 Trouble Messages

Trouble Messages will appear to indicate the following:

59 Not Ready
S01 – S04 Low Bat (rotating status)
S01 – S04 No AC (rotating status)