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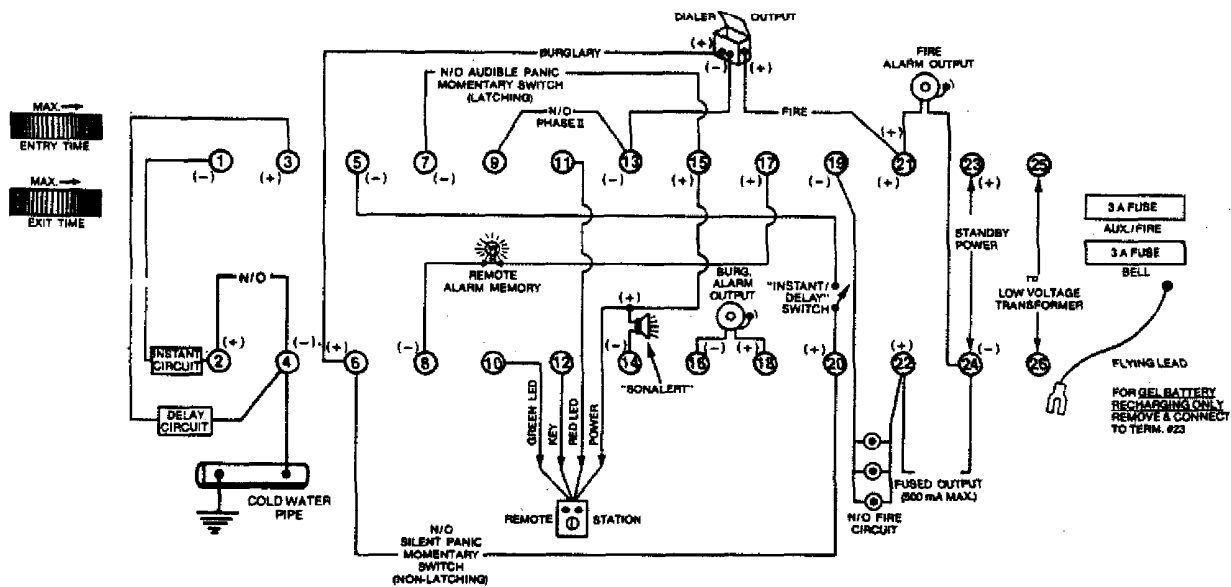
INSTALLATION INSTRUCTIONS

**CCI-5
ALARM CONTROL CENTER**

**6-VOLT MODEL, CCI-5-6
12-VOLT MODEL, CCI-5-12**

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Terminals 1 (-) & 2 (+) – Protective Circuit (Instant Circuit)

The circuit connected to these terminals triggers an alarm immediately when it has been broken. Only normally closed switching devices, wired in series, can be used. A total circuit resistance of 300 ohms should not be exceeded.

Terminals 3 (+) & 4 (-) – Protective Circuit (Delay Circuit)

The circuit connected to these terminals provides a time delay between violation and alarm. Connect only normally closed switching devices, wired in series, to areas of entrance and exit (front door, garage doors, etc.). Do not exceed a total circuit resistance of 300 ohms. See "Procedure for Setting Exit and Entrance Delays" for more information.

Normally Open Input –

A connection between the instant and delay protective circuits will trigger an instant alarm. This acts as a warning of a short between the two circuits and can be used as a separate normally open protective circuit. Use only normally open switches, such as floor switch mats, wired in parallel.

Terminal 4 – Earth Ground

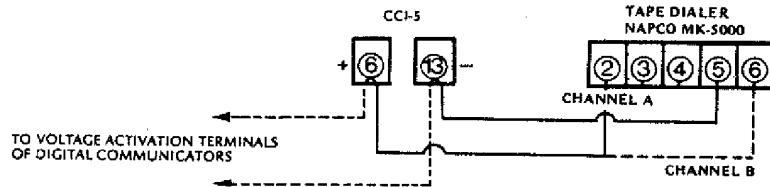
Run two insulated wires of at least 16 gauge from this terminal to: 1) the nearest screw supporting the PC board. The wire is connected between the screw head and the PC board. 2) A cold water pipe. *Do not use a gas pipe or the building's AC ground.* The wire must be clamped or soldered to a clean spot on the pipe.

Terminals 5 & 20 – Instant/Delay Switch

A maintained On/Off switch can be wired to these terminals. When the switch is in the open position, or when no switch is used, the protective circuit between terminals 3 & 4 will function as a delay loop. With the switch in the closed position, the loop will give an "instant" alarm response.

Terminals 6 (+) & 13 (-) – Burglary Dialer Output (Voltage Activation)

A break in either of the protective circuits, or a dry closure of either the audible or silent panic circuit, will cause a voltage to occur across these terminals. This will be sufficient to trigger a tape or digital dialer.



Terminals 7 & 15 – Audible Panic Circuit (Normally Open, Latching)

Normally open, momentary switches are wired in parallel across these terminals. When a switch is closed, the panel will "latch-in" and remain that way until it is reset by the key switch:

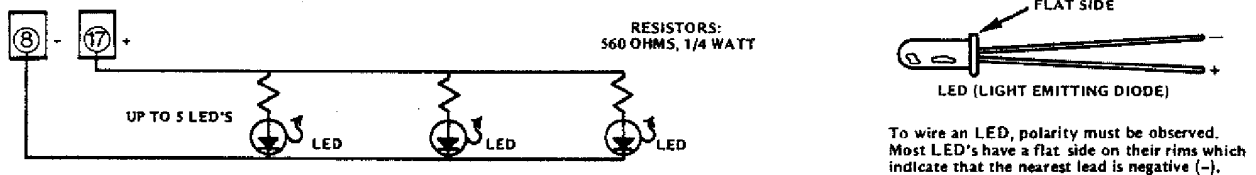
When the panic switch is closed:

1. A voltage will occur across the burglary alarm output, terminals 16 & 18 (not affected by bell cut-off).
2. A voltage will occur across the burglary dialer output, terminals 6 & 13.

Terminals 8 (-) & 17 (+) – Remote "Alarm Memory" Indicator Output

Up to 5 LED's, an incandescent lamp that does not exceed 80 mA, or a Sonalert (Napco's SNP-428) warning device can be wired between these terminals. A voltage will occur across these terminals if either of the protective circuits have been violated, or if either the audible or silent panic circuit has been activated.

Wire in the LED's as shown below, using a 560 ohm, 1/4 watt resistor for each LED.

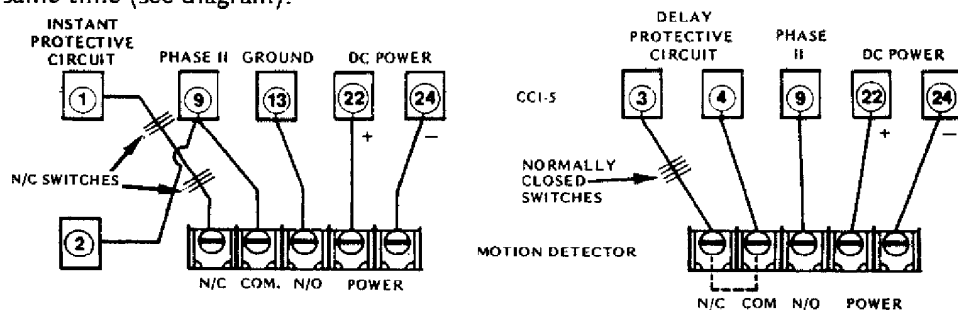


Terminals 9 (+) & 13 (-) – Phase II (Normally Open Inputs)

Any normally open internal detection device, such as switch mats or ultrasonics, supplying a momentary closure can be wired across these terminals.

Phase II provides a back-up normally open protective circuit. It is inactive while both normally closed protective circuits are closed. It becomes operative when either of the normally closed protective circuits have been violated (when armed) and left open, and the alarm has automatically timed out. An intruder disturbing any of the Phase II devices will set off the alarm a second time. The alarm will sound until it is automatically timed out. Phase II remains active, and will continue to trigger an alarm, until the panel is shut off or the protective circuits are restored.

For added security, photoelectrics and ultrasonics can be connected into the protective and Phase II circuits at the same time (see diagram).



Terminals 12 & 15 – Key Switch

A normally open, momentary key switch, such as a Napco L-1 or L-2, can be wired across these terminals either independently or in conjunction with remote stations. The switch can be mounted on the cabinet by first removing the plastic knock-out on the unit's door.

Terminals 13 (-) & 21 (+) – Fire Dialer Output (Voltage Activation)

A closing of the normally open fire protective circuit (terminals 19 & 22) will cause a voltage to occur across the dialer activation terminals. This will be sufficient to trigger a tape or digital dialer.

It is advised to use Channel B, which is usually a priority channel, for the fire emergency message of the dialer.

Terminals 14 (-) & 15 (+) – Entry Delay Warning Output

A Sonalert (Napco's SNP-428) is wired between these terminals. It provides a warning to the user that the control panel must be turned off or reset within the preselected entry delay time.

Using a Sonalert also makes the adjusting of the entry delay a lot easier. See instructions for setting delay times.

Terminals 16 (-) & 18 (+) – Burglary Alarm Output

A maximum of 2 amps, at 6 VDC (Model CCI-5-6) or 12 VDC (Model CCI-5-12), is available across these terminals for the purpose of powering a bell or siren. It is activated by a break in either protective circuit or a dry closure across the audible panic circuit terminals.

This output is fused by a 3 amp fuse which is located to the right of the terminal strip.

An automatic timer is built into the panel which cuts off the output after approximately 15 minutes. The panel will automatically reset itself after cut-off, provided that the protective circuits have been restored. A longer cut-off time of approximately 25 minutes can be had by special request to the factory.

The cut-off can be bypassed by connecting a jumper wire across terminals 9 & 13. This will eliminate the Phase II feature and make the panel resettable only by the key switch.

Power Output Considerations

Maximum available amperage of this panel is 2 amps @ 6 volts or 3 amps @ 12 volts.

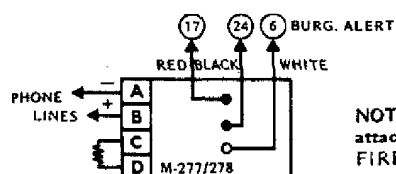
This is shared by the:

Continuous DC Output	500 mA (max)
Remote Stations (Max. of 5 LED type)	160 mA (max)
Remote LED Indicators	80 mA (max)

This leaves 1.26 amps @ 6 volts or 2.26 amps @ 12 volts to drive the alarms if all of the above are used to their absolute limits.

Terminals 17 (+) & 24 (-) – Line Reversal Module (Optional)

A Napco M-277 (for 6 volt panels) or M-278 (for 12 volt panels) Line Reversal Module may be wired to these terminals for control panel monitoring by "leased line" central stations. Upon an alarm condition, the module reverses the normal voltage on the leased lines attached to it. Not effected by the "BELL/BATTERY & FIRE RESET" switch.



NOTE: White lead can also be attached to terminal 21 for FIRE alert.

Terminals 19 (-) & 22 (+) – Normally Open Fire Protective Circuit

Normally open fire sensors, such as heat or smoke detectors, are wired in parallel across these terminals. A momentary closure activates the fire alarm output (terminals 21 & 24) and the fire dialer output (terminals 13 & 21).

Once the fire circuit has been triggered, it is shut off and reset with the "Bell/Battery Test/Fire Reset" switch on the front panel.

Terminals 20 & 6 – Silent Panic Circuit (Normally Open, Non-Latching)

Normally open, momentary switches are wired in parallel across these terminals. When a panic switch is closed, a temporary dry closure will occur within the panel and cause a voltage across terminals 6 & 13 (Burglary Dialer Output).

The voltage will be present only during the time the panic switch is closed. For this reason, the automatic abort feature of the dialer must *not* be used.

Terminals 21 (+) & 24 (-) – Fire Alarm Output

A maximum of 2 amps at 6 VDC [Model CCI-5-6] or 12 VDC [Model CCI-5-12] is available across these terminals for the purpose of powering a bell or siren. It is activated by a closing of the normally open fire protective circuit. This output is fused by the AUX./FIRE 3 ampere fuse located to the right of the terminal strip.

Terminals 22 (+) & 24 (-) – Continuous DC Output

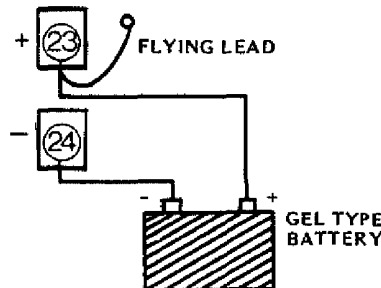
A constant source of filtered, unregulated DC voltage, at 500 mA maximum, is available across these terminals. For 6 volt models [CCI-5-6] voltage may vary between 6-10 VDC. For 12 volt models [CCI-5-12] voltage may vary between 12-18 VDC. This can be used to power photoelectrics, ultrasonics, or smoke detectors.

This output is fused by the 3 ampere AUX./FIRE fuse, located to the right of the terminal strip. Voltage is momentarily interrupted when the BELL/BATTERY TEST/FIRE RESET switch is pushed.

Terminals 23 (+) & 24 (-) – Standby Power Input

- The CCI-5-6 uses either a 6 VDC dry cell or a rechargeable gel type battery, such as a Napco RBAT-2, for standby power.
- The CCI-5-12 uses either a 12 VDC dry cell or a rechargeable gel type battery, such as a Napco RBAT-1, for standby power.

When using a rechargeable battery with either model, the flying lead at the right of the terminal strip should be attached to terminal 23 as shown below.



NOTE: The flying lead must never be allowed to touch any terminal other than its retaining (when not in use) or recharging terminals.

Terminals 25 & 26 – AC Power Input

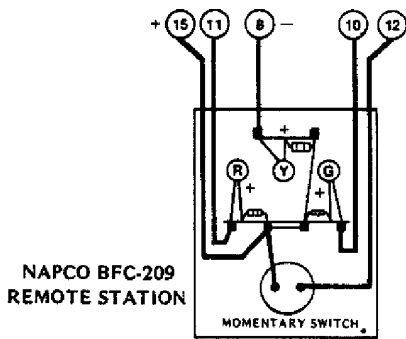
The included Napco TRF-6 (for CCI-5-6) or TRF-4 (for CCI-5-12) transformer is wired to these terminals. The transformer should be plugged into an outlet that provides a 24 hour source of power that cannot be accidentally shut off.

ALL WIRING SHOULD BE COMPLETED BEFORE STANDBY OR AC POWER SOURCES ARE CONNECTED TO THE PANEL

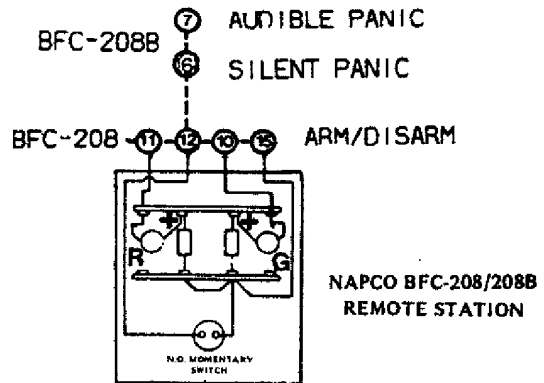
REMOTE STATION INSTALLATIONS

Multi-Remote Stations

The CCI-5 can use the Napco BFC-208/208B Remote Stations with LED indicators for "Armed" (red) and "Protective Circuit" (green), or the Napco BFC-209 Remote Station with an extra LED indicator for "Alarm Memory" (yellow). Up to 5 LED type remote stations can be used, or any number of incandescent remote stations, provided that the total current draw from each set of protective circuit status lamps (green) and each set of arm/disarm lamps (red) does not exceed 80 mA, respectively.



- All stations are to be wired in parallel with each other
- A run of up to 500 feet can be made using 22 gauge wire
- BFC-208 & BFC-209 Remote Stations should be used with Napco L-1 or L-2 key switches.



Fire Remote Stations

To monitor and control the CCI-5's fire circuit, one of two Fire Remote Stations can be used.

1. BFC-213 Fire Remote Station — used *only* with 6.volt models of the CCI-5 [CCI-5-6].
2. BFC-213"U" Fire Remote Station — used with either 6 or 12 volt models of the CCI-5.

Both stations provide remote monitoring of a supervised fire circuit and the AC power to the control panel. The green LED will remain on as long as AC power is present at the panel.

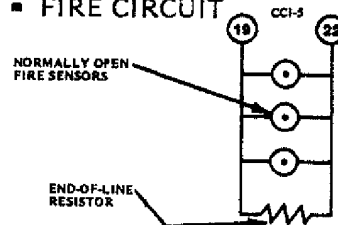
If the fire circuit loses continuity, the remote station's "Sonalert" will sound. To shut this off, the station's slide switch must be placed in the TROUBLE position. The "Sonalert" will then go off and the red LED will light. Once continuity returns to the fire circuit, the "Sonalert" will sound again to remind the user to return the slide switch to the NORMAL position.

■ FIRE REMOTE STATION TO CCI-5 PANEL

REMOTE TERMINALS TO PANEL TERMINALS

3 & 4 (not used)	—
1	22
2	19
5	24
6	26

■ FIRE CIRCUIT

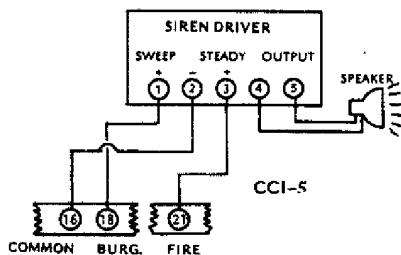


6 VOLT SYSTEMS: Use 220 ohm, 1/2 watt end-of-line resistor.
12 VOLT SYSTEMS: Use 620 ohm, 1/2 watt end-of-line resistor.

WIRING SIREN DRIVERS

Wiring Siren Drivers to the CCI-5

The CCI-5 may be wired for use with siren drivers by using the wiring scheme shown. **DO NOT** use Terminal 24 as negative return from siren driver, as that terminal is unfused. Observe correct wiring convention to avoid damage to the control panel.



NOTE: The Bell Neg. (terminal 16) should not be used for any wiring other than the Bell or Siren Driver

PC BOARD FEATURES

Aux./Fire Fuse

This 3 Ampere, 3 AG, normal-blow fuse is used to protect the constant DC output (terminals 22 & 24), the Fire Alarm output (terminals 21 & 24), Remote Alarm Memory LED output (terminal 17), Audible Panic (+), Remote Plate Power and Sonalert (terminal 15), and Audible Panic (-), Instant/Delay Circuit (terminal 20).

When the fuse is removed or faulty, the power to these terminals is cut and the green "Protective Circuit" LED and the red Remote Alarm Memory LED will not light, thus giving a supervised fuse.

Bell Output Fuse

This 3 ampere, 3 AG, normal blow fuse is used to protect the voltage output of the burglary alarm output (terminals 16 & 18).

When the fuse is removed or faulty, the power to these terminals is cut and the green "Protective Circuit" LED will not light, thus giving a supervised fuse.

Gel Type Battery Recharging

The spade lug of the flying lead is attached to terminal 23 only if a gel type rechargeable battery is being used for standby power. When a dry cell battery is used, the lead is left connected to its retaining terminal.

PROCEDURE FOR SETTING EXIT AND ENTRANCE DELAYS

Delays are adjusted separately by the two potentiometers to the left of the terminal strip. The rotation of the adjustment wheels to the right increases the delay time to a maximum of approximately 40 seconds. Rotation to the left decreases delay time to instant activation.

Entry Delay

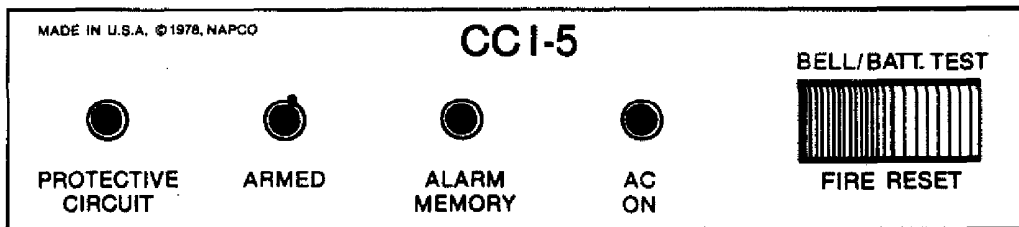
1. Complete all connections, including power inputs.
2. Turn key switch to "Off".
3. Set "Exit" and "Entry" pots (potentiometers) to Zero.
4. Turn "Entry" pot one half turn (180 degrees).
5. Open delay circuit.
6. Turn key switch on and determine the amount of time before alarm.
7. This is the entrance delay time. If more or less time is desired, repeat the above procedure adjusting the "Entry" delay pot accordingly. When proper time has been set, do not make any further adjustments with this pot.

Exit Delay

1. Close delay circuit.
2. Turn key switch to "Off".
3. Turn "Exit" pot one half turn (180 degrees).
4. Turn key switch to "On".
5. Open delay circuit.
6. After opening the delay circuit, determine the time before the alarm sounds in seconds. From this time, subtract the Entrance Delay time you've already set. Your answer will be the Exit Delay. If more or less exit time is desired, repeat this "Exit Delay" procedure adjusting the "Exit" pot accordingly.

If an entry delay warning device (Napco's Sonalert SNP-428) is used, the exit delay time is figured as the period between the opening of the delay circuit and the sounding of the entry delay warning device.

EXTERIOR FRONT PANEL



Protective Circuit LED (Green)

This LED will light while the control center is disarmed, as long as both protective circuits are complete, and both fuses are in place and functional.

Armed LED (Red)

This LED will light once the panel is turned on to a ready condition (ARMED).

AC On LED (Yellow)

This LED will light when AC power from the included transformer is present at terminals 25 & 26.

Alarm Memory (Red)

This LED will light after an alarm condition has been triggered. The LED will remain on even after the panel has been disarmed, and can only be shut off by resetting the panel.

Bell/Battery Test & Fire Reset Switch

This switch is a momentary rocker switch which, when pressed, sends current from the standby power source to the alarm. If the alarm sounds weak or does not sound at all, either the standby power or alarm are suspect. Switch activation does not effect terminals 6 & 13 (burglary dialer output).

The fire circuit is also reset with this switch. When pressed, the fire alarm will be silenced and the fire protective circuit will be rearmed. This also interrupts the voltage output of terminals 22 & 24, which can be used to reset latching smoke detectors.

SPECIFICIATIONS

	CCI-5-6	CCI-5-12
Operating Voltage	6 volts	12 volts
Current Draw at Idle	25 mA	50 mA
Standby Time (gel type battery)	160 hours	80 hours
Auxiliary Output	6-10 VDC, 500 mA	12-18 VDC, 500 mA
Dimensions	10¼" H. x 8½" W. x 3½" D.	
Weight	8 pounds	

