NAPCO

OPERATING AND INSTALLATION INSTRUCTIONS

CCI-4
ALARM CONTROL CENTER

for 6-VOLT MODELS (CCI-4-6) & 12-VOLT MODELS (CCI-4-12)

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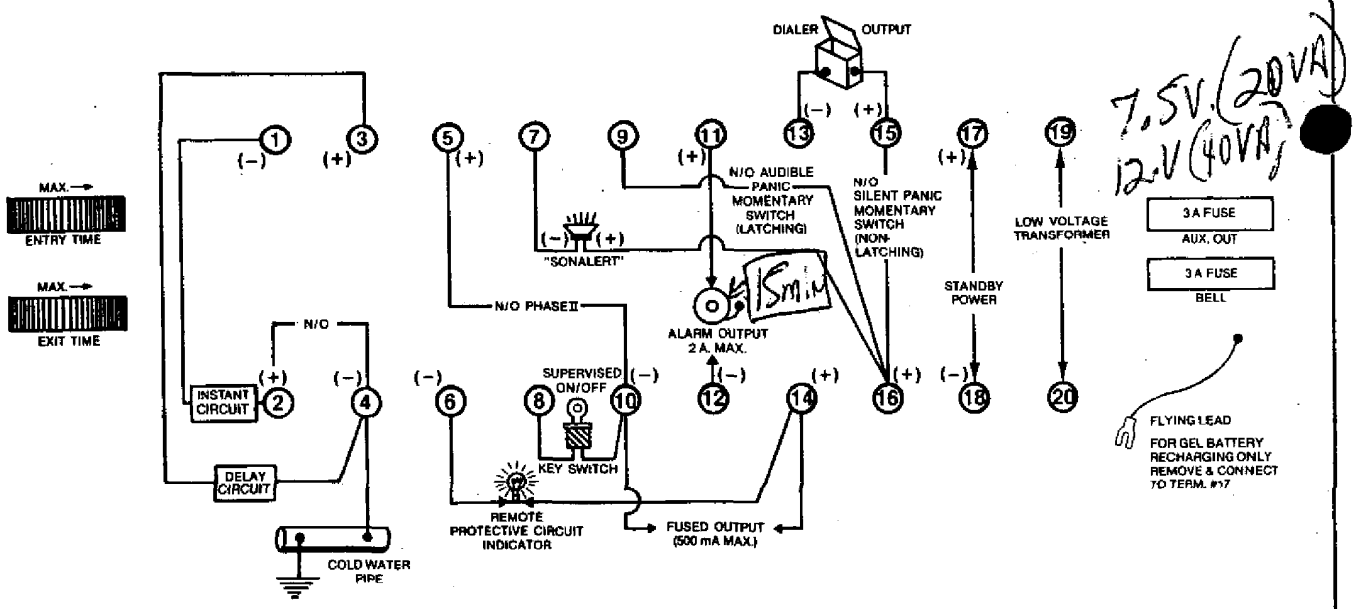


ALL WIRING SHOULD BE COMPLETED BEFORE STANDBY OR AC POWER SOURCES ARE CONNECTED TO THE PANEL

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 doors, garage doors, etc.). Do not exceed a total circuit resistance of 300 ohms. See "Procedure for Setting Exit & 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 mats, wired in parallel.

Terminal 4 — Earth Ground

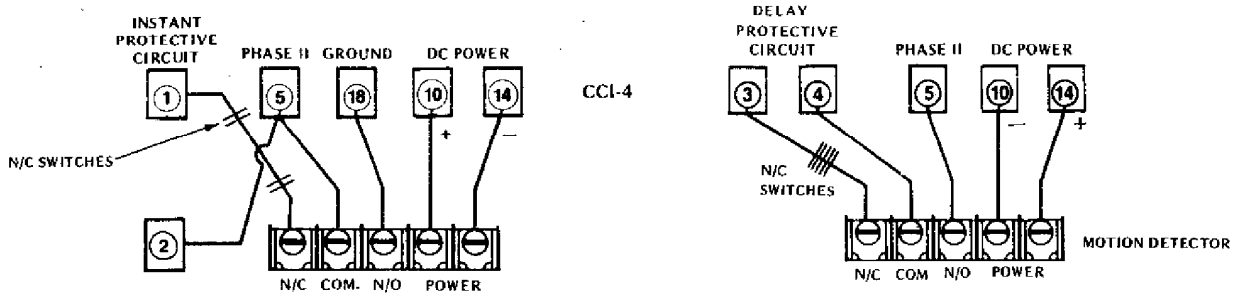
Run two insulated wires of at least 16 gauge from this terminal to: 1) the nearest screw supporting the PC board. The wire is connected between the screw head and the PC board. 2) A cold water pipe. *Do not use a gas pipe or the building's AC ground.* The wire must be clamped or soldered to a clean spot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

Terminals 5 (+) & 10 (–) — 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 once 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.

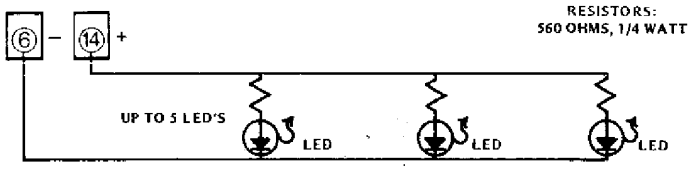
For added security, photoelectrics and ultrasonics can be connected into the protective and Phase II circuits at the same time (see diagram).

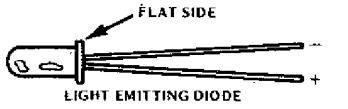


Terminals 6 (–) & 14 (+) — Remote "Protective Circuit" Indicator Output

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. These indicators are used to monitor the condition of both protective circuits and fuses. A voltage is present at these terminals as long as both circuits are closed, and both fuses are in place and functional.

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





To wire an LED, polarity must be observed. Most LED's have a flat side on their rims which indicate that the nearest lead is negative (–).

Terminals 7 (–) & 16 (+) — 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 reset or turned off 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 8 & 10 — Key Switch

An On/Off, maintained key switch (one only) can be wired across these terminals. In the closed position, both protective circuits are disarmed.

The switch can be mounted on the cabinet by first removing the knock-out. A printed ring, with an adhesive backing, is included to designate the "On" and "Off" positions.

Terminals 9 & 16 — Audible Panic Circuit (Normally Open Input; Latching)

Normally open, momentary switches are wired in parallel across these terminals. When a switch is closed, the panel will affect a permanent latching. The panel will remain this way until it has been reset.

When the panic switch is closed:

1. A voltage will occur across the alarm output, terminals 11 & 12 (not affected by automatic bell cut-off).
2. A voltage will occur across the dialer output, terminals 13 & 15.

Terminals 10 (–) & 14 (+) — Continuous DC Output

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

This output is fused by a 3 ampere fuse, located to the right of the terminal strip. Voltage is momentarily interrupted when the "Bell/Battery Test" switch is pushed.

Terminals 11 (+) & 12 (-) — Alarm Output

A maximum of 2 amps at 6 VDC [Model CCI-4-6] or 12 VDC [Model CCI-4-12] is available across these terminals for the purpose of powering a bell or siren. **Do not use Terminal 12 (–) for any other purpose!**

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 reset automatically when the alarm cuts off, provided that the protective circuit has 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 5 & 10. This will eliminate the Phase II feature, and make the panel resettable only by the key switch.

Power Voltage Considerations

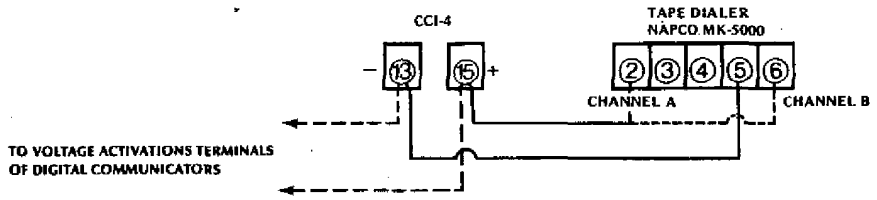
Maximum available amperage of this panel is 2 amperes. This is shared by the:

Continuous DC Output	500 mA (maximum)
Remote Stations (80 mA/lamp, giving 160 mA maximum)	160 mA (maximum)
Remote LED Indicators	80 mA (maximum)

This leaves 1.26 amperes to drive the alarms if all of the above are used to their absolute limits.

Terminals 13 (–) & 15 (+) — 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 either a tape or digital dialer.



Terminals 15 & 16 — Silent Panic Circuit (Normally Open, Non-Latching)

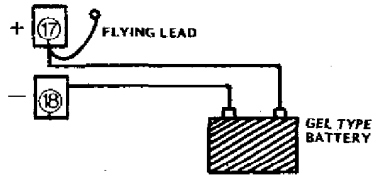
Normally open, momentary switches are wired in parallel across these terminals. When a panic switch is closed, a temporary dry closure will occur within the panel and cause a voltage across terminals 13 & 15 (dialer output).

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 17 (+) & 18 (-) — Standby Power Input

- The CCI-4-6 uses either a 6 VDC dry cell or a rechargeable gel type battery, such as a Napco RBAT-2, for standby power.
- The CCI-4-12 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 17 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 19 & 20 — AC Power Input

The included Napco TRF-6 (for CCI-4-6) or TRF-4 (for CCI-4-12) 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.

PC BOARD FEATURES

Auxiliary Output Fuse

This 3 AG, 3 amp, normal blow fuse is used to protect the voltage output across terminals 10 & 14.

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

Bell Output Fuse

This 3 AG, 3 amp, normal blow fuse is used to protect the voltage output across terminals 11 & 12.

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

Gel Type Battery Recharging

The spade lug of the flying lead is attached to terminal 17 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 pots (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 "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" 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 "Off".
3. Turn "Exit" pot one half turn (180 degrees).
4. Turn key switch "On".
5. Open delay circuit.
6. After opening the delay circuit, determine the time before alarm in seconds. From this time, subtract the Entrance Delay time already set. The answer will be the Exit Delay. If more or less exit time is desired, repeat this "Exit Delay" procedure adjusting the "Exit" pot accordingly.

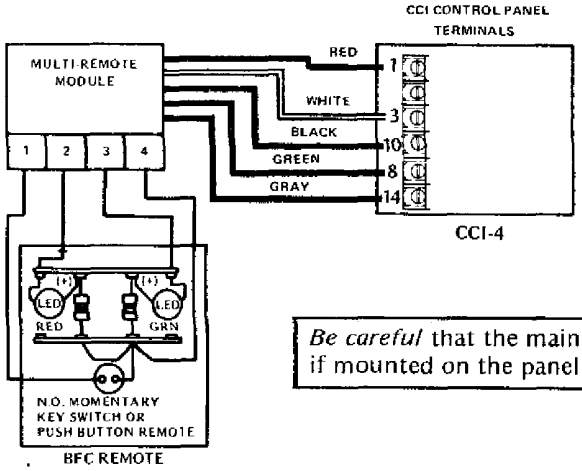
If an entry delay warning device (Sonalert, Napco's SNP-428) is used, the exit delay time is figured as the period between the opening of the delay circuit and the sounding of the entry delay warning device.

INSTALLATION OF ACCESSORIES

Multi-Remote Stations

The CCI-4-6 (6 volts) uses the M-274 Multi-Remote Module. The CCI-4-12 (12 volts) uses the M-275 Multi-Remote Module.

Both Multi-Remote Modules can add up to 5 Napco BFC-208/208B Remote Stations, 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.



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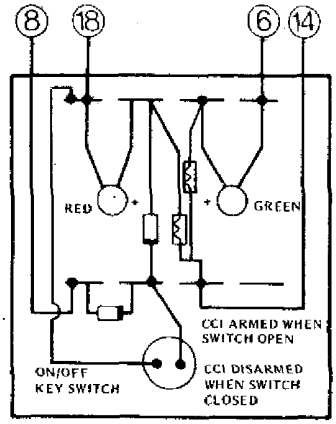
Be careful that the maintained On/Off key switch, if mounted on the panel cabinet, is disconnected.

Single Remote Station

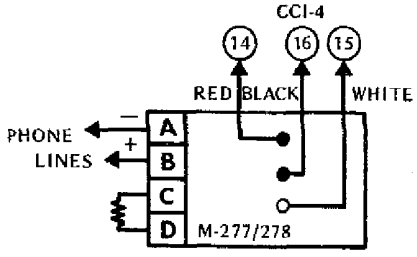
When only one remote station is needed, a Napco CCI-RSP Remote Station is used. This provides a green LED which lights when both protective circuits are closed, a red LED which lights when the panel is armed, and a maintained key switch (switch not included) which arms the panel when in the open position.



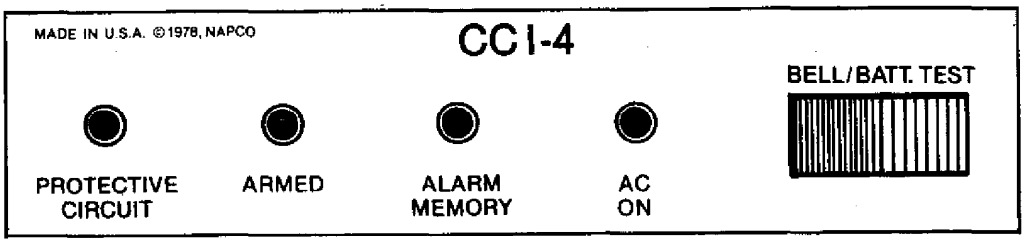
NAPCO CCI-RSP REMOTE STATION

Line Reversal Module

A Napco M-277 (6 volt) or M-278 (12 volt) Line Reversal Module can be used with the CCI-4 for 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/BATT. TEST" switch.



EXTERIOR FRONT PANEL



Protective Circuit LED (Green)

This LED will light only when 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.

AC On LED (Yellow)

This LED will light when power from the included transformer is present at terminals 19 & 20.

Alarm Memory LED (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 Switch

This 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.

Pressing this switch momentarily interrupts the voltage from the "Continuous DC Output", terminals 10 & 14. It does not effect terminals 13 & 15 (dialer output).

SPECIFICATIONS

	CCI-4-6	CCI-4-12
Operating Voltage	6 volts	12 volts
Current Draw at Idle	30 mA	60 mA
Standby Time (gel type battery)	130 hours	65 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	

BASIC TROUBLESHOOTING GUIDE

PROBLEM	REMEDY
No AC LED	Check AC power. Check transformer output. (Note: Transformer has internal fuse.)
No Green LED (unit arms/ disarms okay)	Check Auxiliary Output fuse.
No Green LED (control arms & goes into alarm instantly).	Place jumper between Terminals 1 & 2 and reset control. If okay, check instant circuit for continuity.
No Green LED (unit arms and goes into alarm after a period of time).	Place jumper between Terminals 3 & 4 and reset control. If okay, check delay circuit for continuity.
No Green LED (control arms after delay period, alarm memory LED indicates alarm but no bell output).	Check Bell fuse.
Bell/Test Switch Will Not Activate Bell or Siren.	Check standby battery, voltage, & associated wiring.
Control Will Not Arm.	Check keyswitch. Check keyswitch wiring for short by removing wiring from Terminal 8. Control should arm.
Control Will Not Disarm	Check keyswitch. Check keyswitch wiring for open by removing wiring from Terminal 8 & temporarily placing jumper across Terminals 8 & 10. Control should disarm.
No Bell Output	Check fuse. Check output voltage at Terminals 11 (+) and 13 (-). If okay, check bell circuits.

Napco Limited Warranty

NAPCO SECURITY SYSTEMS, INC. (NAPCO) warrants each of its products to be free from manufacturing defects in materials and workmanship for fifteen 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 accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling, reassembly or reinstallation charges.

In order to exercise the warranty, the product must be returned by the user or purchaser, shipping costs prepaid, and insured to NAPCO at its offices at 6 DiTomas Court, Copiague, New York. After repair or replacement, NAPCO assumes the cost of returning products under warranty.

There are no warranties, express or implied which extend beyond the description of the face hereof. There is no express or implied warranty of merchantability or a warranty of fitness for a particular purpose. Additionally, this warranty is in lieu of all other obligations or liabilities on the part of NAPCO.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly canceled. NAPCO neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, nor to assume for it, any other warranty or liability concerning its products.

In no event shall NAPCO be liable for an amount in excess of NAPCO's original selling price of the product, for any commercial loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

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. Therefore, the consumer is advised 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.

This warranty shall be construed in accordance with the laws of the State of New York.

NAPCO