

# TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

**CPC-1**  
**CPC Disconnect**

September 23, 2005

## Generate a CPC Disconnect Signal



The **CPC-1** will generate a CPC disconnect signal on a PABX analog station (or any other line that does not provide this signal).

A **CPC** (Calling Party Control) signal is a momentary break in phone line loop current, which is used to signal automated telco equipment (ie. voice mail, call sequencers, etc.) the distant party has hung up. Central Office telephone lines typically provide this signal, but Analog PABX stations do not.

The **CPC-1** will generate a 1 second disconnect when it detects a busy signal, reorder tones (fast busy), return to dial tone, or silence.

## Features

- Phone line powered (no AC needed)
- Generates CPC disconnect on:
  - Return to dial tone (programmable)
  - Busy signal
  - Reorder (fast busy)
  - Steady silence (programmable)
- LED shows:
  - In use
  - Audio detected
  - Generated CPC signal
- Caller ID compatible

## Applications

- Tandem PABX configuration
- Analog PABX station to Trunk talk paths between two PABXs
- C.O. lines that don't provide CPC
- Voice Mail behind PABX
- Add CPC disconnect signal to T-1 channel bank lines
- Call sequencers behind PABX
- ISDN
- VOIP

Sold by:



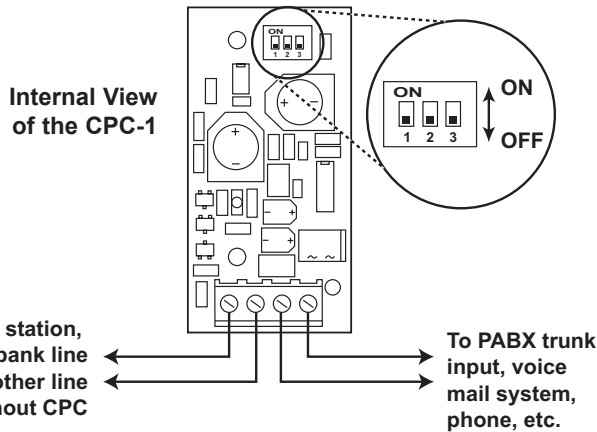
Phone... 715.386.8861

[www.vikingelectronics.com](http://www.vikingelectronics.com)

## Specifications

**Power:** Telephone line powered (20VDC, 20mA minimum)  
**Dimensions:** 74mm x 53mm x 25mm (2.9" x 2.1" x 1.0")  
**Shipping Weight:** 0.45Kg (1 lbs)  
**Environmental:** 0° C to 32° C (32° F to 90° F) with 5% to 95% non-condensing humidity  
**CPC Disconnect Time:** 1 second nominal  
**Connections:** 4 position screw terminal block

# Wiring and Programming



## DIP Switch Programming

DIP Switch 1	DIP Switch 2	Description
OFF	OFF	Silence time disabled
OFF	ON	Will CPC on 10 seconds of silence
ON	OFF	Will CPC on 20 seconds of silence
ON	ON	Will CPC on 30 seconds of silence

DIP Switch 3	Description
OFF	Will not CPC on a return to dial tone.
ON	Will generate a CPC on a return to dial tone.

## Operation

### A. Generating a CPC Disconnect

The **CPC-1** monitors audio activity on the line to determine when to generate a CPC disconnect signal. A CPC disconnect signal is generated if busy signal cadence, or a reorder tone (fast busy) cadence is detected. Using DIP switches 1 & 2, the **CPC-1** can also be programmed to generate a CPC disconnect signal based on uninterrupted silence. The **CPC-1** will not respond to originating Dial Tone, but can be programmed to generate a CPC disconnect signal if the line returns to Dial Tone (steady audio).

### B. LED Operation

The **CPC-1** is in use when the LED is on. The LED will light extra bright when audio is detected. For example, a busy signal can be seen as the LED toggling between "on" and "extra bright" in a 1/2 second pattern. Steady silence shows as steady on, dial tone shows as steady extra bright, and talking shows a random pattern.

The LED will wink "off" for 1 second when the unit generates a CPC disconnect signal. The LED will then remain off when the line is cleared and not in use.

## Warranty

**IF YOU HAVE A PROBLEM WITH A VIKING PRODUCT, PLEASE CONTACT: VIKING TECHNICAL SUPPORT AT (715) 386-8666**

Our Technical Support Department is available for assistance weekdays between 8 a.m. and 5 p.m. central time. So that we can give you better service, before you call please:

1. Know the model number, the serial number and what software version you have (see serial label).
2. Have your Technical Practice in front of you.
3. It is best if you are on site.

### RETURNING PRODUCT FOR REPAIR

The following procedure is for equipment that needs repair:

1. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (RA) number. The customer **MUST** have a complete description of the problem, with all pertinent information regarding the defect, such as options set, conditions, symptoms, methods to duplicate problem, frequency of failure, etc.
2. Packing: Return equipment in original box or in proper packing so that damage will not occur while in transit. Static sensitive equipment such as a circuit board should be in an anti-static bag, sandwiched between foam and individually boxed. All equipment should be wrapped to avoid packing material lodging in or sticking to the equipment. Include ALL parts of the equipment. C.O.D. or freight collect shipments cannot be accepted. Ship cartons prepaid to:  
**Viking Electronics, 1531 Industrial Street, Hudson, WI 54016**
3. Return shipping address: Be sure to include your return shipping address inside the box. We cannot ship to a PO Box.
4. RA number on carton: In large printing, write the R.A. number on the outside of each carton being returned.

### RETURNING PRODUCT FOR EXCHANGE

The following procedure is for equipment that has failed out-of-box (within 10 days of purchase):

1. Customer must contact Viking's Technical Support at 715-386-8666 to determine possible causes for the problem. The customer **MUST** be able to step through recommended tests for diagnosis.
2. If the Technical Support Product Specialist determines that the equipment is defective based on the customer's input and troubleshooting, a Return Authorization (R.A.) number will be issued. This number is valid for fourteen (14) calendar days from the date of issue.
3. After obtaining the R.A. number, return the approved equipment to your distributor, referencing the R.A. number. Your distributor will then replace the product over the counter at no charge. The distributor will then return the product to Viking using the same R.A. number.
4. **The distributor will NOT exchange this product without first obtaining the R.A. number from you. If you haven't followed the steps listed in 1, 2 and 3, be aware that you will have to pay a restocking charge.**

### WARRANTY

Viking warrants its products to be free from defects in the workmanship or materials, under normal use and service, for a period of one year from the date of purchase from any authorized Viking distributor or 18 months from the date manufactured, whichever ever is greater. If at any time during the warranty period, the product is deemed defective or malfunctions, return the product to Viking Electronics, Inc., 1531 Industrial Street, Hudson, WI., 54016. Customer must contact Viking's Technical Support Department at 715-386-8666 to obtain a Return Authorization (R.A.) number.

This warranty does not cover any damage to the product due to lightning, over voltage, under voltage, accident, misuse, abuse, negligence or any damage caused by use of the product by the purchaser or others.

Vikings sole responsibility shall be to repair or replace (at Viking's option) the material within the terms stated above. **VIKING SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING DIRECTLY OR INDIRECTLY FROM ANY BREACH OF ANY WARRANTY EXPRESSED OR IMPLIED, OR FOR ANY OTHER FAILURE OF THIS PRODUCT.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXCLUDED BEYOND THE ONE YEAR DURATION OF THIS WARRANTY.** Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

**Product Support Line... 715.386.8666**

**Fax Back Line... 715.386.4345**

Due to the dynamic nature of the product design, the information contained in this document is subject to change without notice. Viking Electronics, and its affiliates and/or subsidiaries assume no responsibility for errors and omissions contained in this information. Revisions of this document or new editions of it may be issued to incorporate such changes.