



# TECHNICAL Practice

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**K-1900-5**  
**Hot-Line**  
**Touch Tone Dialer**  
 July 20, 2000

## Replace Dedicated Phone Lines with a Touch Tone Hot-Line Dialer

Why pay the premium of leased or dedicated phone lines?

The **K-1900-5** will automatically dial a preprogrammed number, of up to 32 digits, whenever an associated telephone is taken off hook. Using non-volatile E<sup>2</sup> memory, the **K-1900-5** is telephone line powered and will operate on any loop start central office line or analog PABX/KSU extension.

The **K-1900-5** is easily programmed remotely or locally using a standard Touch Tone phone.

**⚠ This product does not eliminate the possibility of toll fraud! To further protect against fraudulent calls, use with a TR-1 Toll Restrictor (Fax Back Document 705).**

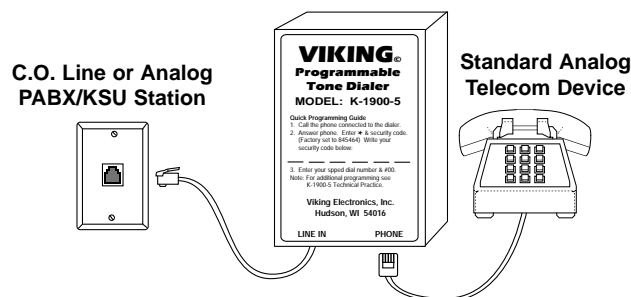


### Features

- Touch Tone programmable
- Telephone line powered
- Non-volatile E<sup>2</sup> memory (no batteries required)
- Ring detection (won't dial on inbound calls)
- User programmable security code
- Programmable pauses in one and four second increments
- Programmable to interrupt user Touch Tone dialing to help control fraudulent calls from hand held dialers, etc.
- Programmable dialing speed (normal or fast)
- Can be configured to operate from a contact closure (**Fax Back Document 818**)

### Installation

Install the **K-1900-5** in series between a telephone and a C.O. line or analog PABX/KSU station.



### Applications

- Security and emergency phones
- Interactive point of sale displays
- Apartment security
- Catalog sales
- Automated Teller Machines (ATM's)
- Replaces leased ring down circuits
- Hot-Line reservation phones for hotels, air lines, car rentals, etc.

Phone... 715.386.8861

info@vikingelectronics.com

http://www.vikingelectronics.com

### Specifications

- Power:** Telephone line powered (24V DC 20 mA minimum)\*
- Dimensions:** 74mm x 53mm x 25mm (2.9" x 2.1" x 1.0")
- Shipping Weight:** .45 kg (1 lb)
- Environment:** 0°C to 32°C (32°F to 90°F) with 5% to 95% non-condensing humidity
- Connections:** (1) RJ11 plug, (1) RJ11 jack
- Dialing Speed:** Normal - 120ms on/off, Fast - 50ms on/off

**\*Note:** When installing multiple line powered products (**K-1900-5** and **E-10/E-15/E-20A/K-1500-EHF**) on the same line, additional talk battery voltage and loop current may be required.

# Installation

## A. Accessing the Programming Mode

1. Connect the **K-1900-5** to a C.O. line or analog PABX/KSU station.
2. From a Touch Tone phone, call another phone connected to the **K-1900-5**.
3. Take the phone connected to the dialer off hook (answer the phone).
4. Enter \* followed by the six digit security code (see section **D** below). A double beep will indicate that you have accessed the programming mode.
5. You can now program your speed dial number and the following features listed in section **B** below.

**Note:** Programming from a cell-phone may not be suitable in areas with weak coverage.

## B. Programming Features

	Digits	+	Memory Location
Speed dial number (1-32 digits*) .....	Number		+ #00
To add a * at any point in the dialing string .....	**		
To add a # at any point in the dialing string .....	*#		
Set dialing speed to normal (120ms on/off, factory setting) .....	*1		
Set dialing speed to fast (50ms on/off) .....	*2		
Interrupt Touch Tone user dialing (factory setting) .....	*3		
Enable Touch Tone user dialing .....	*4		
Set pause before dialing to normal (factory setting) .....	*5		
Set pause before dialing to short .....	*6		
To add a four second pause at any point in the dialing string .....	*7		
To add a one second pause at any point in the dialing string .....	*8		
Change security code (factory set to 845464) .....	6 digits (0 - 9)	+	#47

\*Note: Special features such as a pause, a Touch Tone "\*" and a Touch Tone "#" count as a single digit.

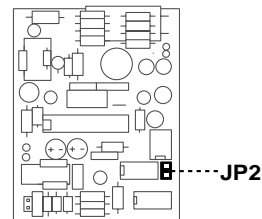
## C. Programming Examples

Programming the K-1900-5...	Enter Digits	Enter Memory Location
... to dial 386-8861	3868861	#00
... to dial 9 (for outside line), pause four seconds, and dial 1-612-555-1212	9*716125551212	#00
... to dial *67	**67	#00
... to enable unlimited user dialing after the <b>K-1900-5</b> has speed dialed	*4	none

**Note:** \*7 places a four second pause after digit 9.

## D. Security Code

The six digit number can be used to access the programming mode. The security code has been factory set to **845464** (V-I-K-I-N-G). It is recommended that you change the security code to a personal 6 digit number. If you have forgotten your security code, remove the cover, short the pins of **JP2** together (see diagram to the right) and follow steps 1-3 in section **A**. Two beeps will indicate you have entered the programming mode. **Note:** The security code must be six digits in length and can NOT contain a \* or #.



## E. Interrupt User Dialing This is not complete toll fraud protection!

The **K-1900-5** interrupts all pulse dialing and can be programmed to interrupt any Touch Tone dialing it did not generate. The **K-1900-5** reacts by continuously repeating Touch Tone #'s until the associated phone has been hung up. To enable unlimited user dialing after the **K-1900-5** has speed dialed, enter \*4 while programming. Entering a \*3 will prohibit user dialing. **Note:** This feature is factory set to block user dialing.

## FCC Requirements

### Type of Service

The **K-1900-5** is designed to be used on standard device telephone lines. The **K-1900-5** is connected to the telephone line by means of a standard RJ-11 plug. Connection to telephone company-provided coin service (central office implemented systems) is prohibited. Connection to party line service is subject to State tariffs.

### Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this it may occasionally be necessary for them to make changes in their equipment, operations, or procedures. If these changes affect your service of the operation equipment, the telephone company will give you notice in writing, allowing you to make any changes necessary to maintain uninterrupted service. If you have any questions about your telephone line, such as, how many pieces of equipment you can connect to it, the telephone company will provide you information upon request. In certain circumstances, it may be necessary for the telephone company to request information from you, concerning the equipment which is connected to your telephone line. Upon request request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN) of the equipment which is connected to your line; both of these items are listed on the equipment label. The sum of all the REN's on your telephone lines should be less than five in order to assure proper service from your telephone company. In some cases, a sum of five may not be usable on a given line.

### If Problems Arise

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC.

In the event repairs are ever needed on your Viking product, they should be performed by Viking Electronics, Inc. and/or an authorized representative of Viking Electronic, Inc.. For more information contact Viking Product Support at (715)386-8666

### FCC Part 15 Limitations

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will have to correct the interference at his own expense.

## IC Requirements

**Notice:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements documents. The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe systems, if present, are connected together. This precaution may be particularly important in rural areas.

**Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) of this device is listed on the equipment label.

**Notice:** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all devices does not exceed 5.

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.