

VIKING

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

DLE-200B

**Two Way Phone
Line Simulator**

December 10, 2003

Two Way Phone Line Simulator Ideal for Ringdown Applications and Demos



The **DLE-200B** Line Simulator provides precise dialtone, DC talk battery and standard or distinctive ringing. The unit also provides a CPC break on hang up.

Features

- Compatible with fax machines and modem speeds up to 28.8 kbps
- Precise dial tone
- Switch selectable ring cadence
- Provides CPC breaks after hang-up on either port
- Switch selectable audio attenuation
- Can provide 2 seconds of precise dial tone before ringdown
- Provides ring back signal to calling device
- One or two way ring down capability
- Jumper selectable ring count
- **Ring down and dial tone off mode** (ideal for prison phone communications, etc.)
- 32VDC talk battery

info@vikingelectronics.com

<http://www.vikingelectronics.com>

The **DLE-200B** Line Simulator produces two way communication between standard telecom products such as modems, fax machines, Key Systems, PABX's and standard single line telephones. The Line Simulator can also provide sales people with a cost effective, easy to use method of conducting on site demonstrations, eliminating the need to locate phone lines and disrupt the customer's phone service.

Applications

- Dedicated point-to-point communications (ringdown circuits)
- Program Telecom products without a phone line
- Connecting dictation equipment to Electronic Key Systems
- Intersystem TIE line
- Courtesy phones
- Demonstrating telecom equipment at trade shows, meetings, etc.
- Connecting modems together
- Prison phone communications
- Programming PC based voice products

Phone...715.386.8861

Specifications

Power: 120V AC/13.8V AC 1.25A, UL listed adapter provided
Power Supply Current Draw: 600mA maximum
Dimensions: 120mm x 70mm x 35mm (4.75" x 2.75" x 1.38")
Shipping Weight: .72 kg (1.59 lbs)
Environmental: 0° C to 32° C (32° F to 90° F) with 5% to 95% non-condensing humidity
Ringer Output: 2.0 REN load maximum
Talk Battery: 32V DC
Dial Tone Level: -20dBm with 600 ohm load
Loop Length: 4.2 km (2.6 mi) maximum - 24 AWG twisted pair
Maximum Data Speed: 28,800 bps
CPC Break Time: 2 seconds or 150 msec (selectable)
Connections: (2) RJ11 jacks

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 Monday 8am-4pm and Tuesday-Friday 8am - 5pm 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.

Viking's 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.

PART 15 LIMITATIONS

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note: 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 harmful 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 this equip-

ment 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:

1. Reorient or relocate receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio TV technician for help.

In addition, a Class B digital device meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Installation and Applications

The **DLE-200B** is designed to initiate a call when either port goes off-hook. The port that comes off hook first will receive 2 seconds of dial tone. The other port will then begin ringing until answered (factory default programming). The "BUSY" LED will light when either device port is off-hook and will turn off during the duration of the CPC break and/or when both device ports are on-hook. **Note:** Dial tone and/or ringdown can be disabled, see **Programming sections A - C**. The following sections **A - G** show the installation of various applications.

IMPORTANT: Electronic devices are susceptible to lightning and power station electrical surges from both the AC outlet and the telephone line. It is recommended that a surge protector be installed to protect against such surges. Contact Panamax at (800) 472-5555 or Electronic Specialists Inc. at (800) 225-4876.

A. Demonstrations

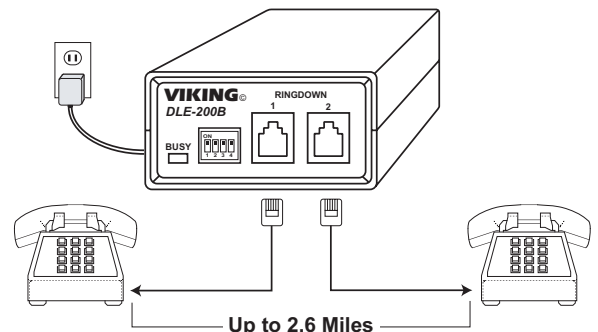
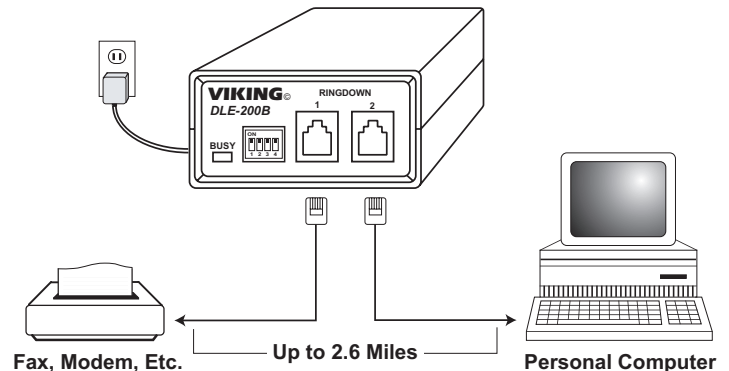
Easily demonstrate the features of fax machines, answering systems, feature phones, modems, key systems, or nearly any analog telecom device. The **DLE-200B** eliminates the need to locate phone lines and disrupt the phone service during demonstration. Demonstrations can be complete and comprehensive but non-disruptive.

Note: In fax/modem applications it may be necessary to reduce the volume level by setting **DIP switch 3** to the **ON** position (see **Programming, section A**). This may increase data speed and help eliminate data transmission errors. For modem speeds faster than 28.8 kps, use Viking model **DLE-300**.

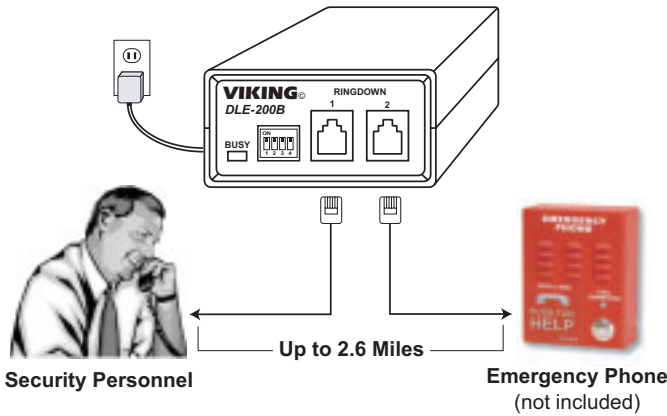
? Need More Information on the DLE-300?
Call (715) 386-4345 and select 607.

B. Ringdown Applications

When used for ringdown applications, the **DLE-200B** eliminates the need for station circuits, phone systems or C.O. lines. This application is ideal for courtesy phones, infra and inter-office communications, warehouse and elevator phones.



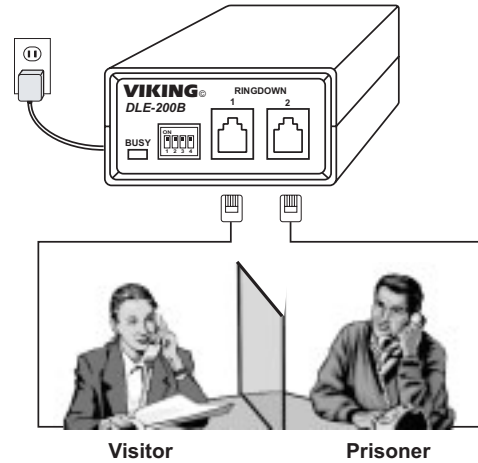
C. Emergency Applications



When used with emergency phones, the **DLE-200B** saves the expense of dedicated phone lines. When the button on the emergency phone is pushed, the **DLE-200B** will provide ringing to a security phone.

? Need More Information on Emergency Phones?
Call (715) 386-4345 and select 215.

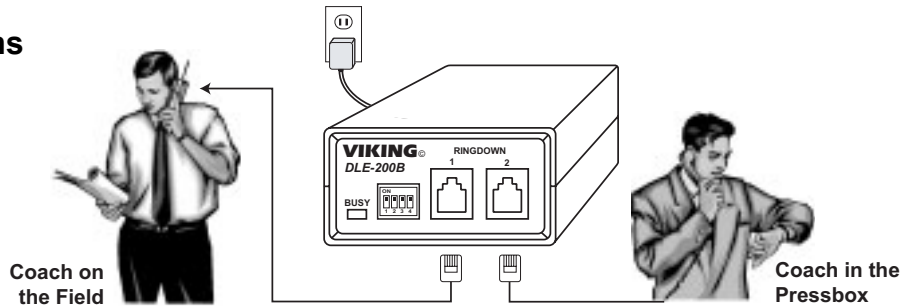
D. Prison Phone Applications



For prison applications, the **DLE-200B** saves the need for dedicated phone lines. Prisoners can converse with visitors phone to phone without dial tone or ringing. **Note: JP3 must be installed, enabling the ring down and dial tone off mode (see Programming section B).**

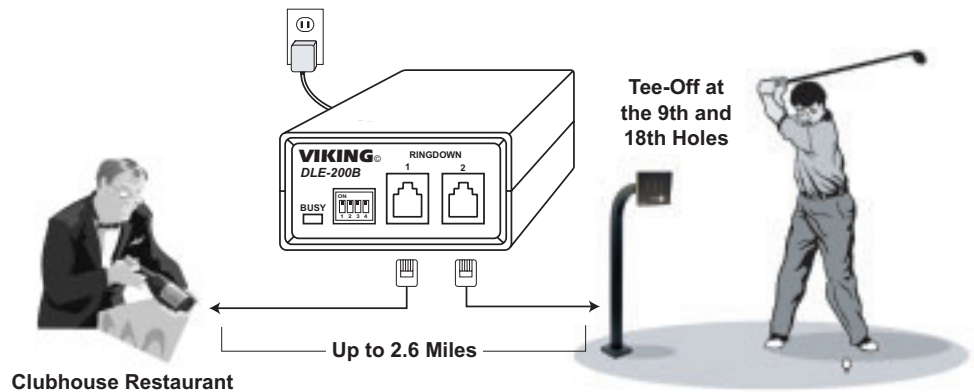
E. Press Box/Coaching Applications

In professional sporting events, the teams have coaches on the field and coaches in the pressbox. A **DLE-200B** allows them phone to phone communication without having to install phone lines throughout a stadium.



F. Golf Applications

In this application, your food can be ready when you come in from golfing. A **Viking** handsfree phone installed on the 9th and 18th holes will allow golfers to call the clubhouse restaurant through a **DLE-200B**, and place an order. When finished golfing, their orders will be ready. Example at right: Viking model **E-10-EWP** with optional **VE-5x5** backbox and **VE-GNP** goose-neck pedestal.

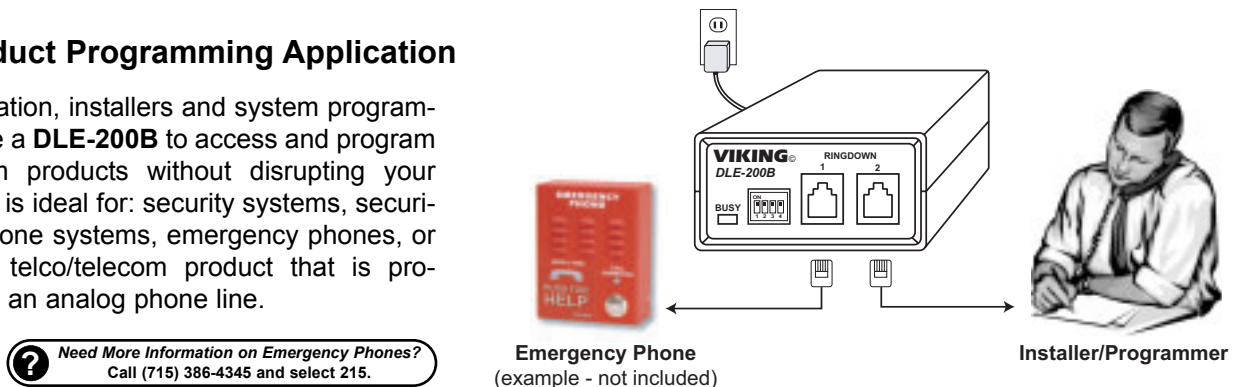


? Need More Information on the E-10-EWP?
Call (715) 386-4345 and select 210.

? Need More Information on the VE-5x5 and VE-GNP?
Call (715) 386-4345 and select 424.

G. Telco Product Programming Application

In this application, installers and system programmers can use a **DLE-200B** to access and program your telecom products without disrupting your phones. This is ideal for: security systems, security panels, phone systems, emergency phones, or any kind of telco/telecom product that is programmed via an analog phone line.



? Need More Information on Emergency Phones?
Call (715) 386-4345 and select 215.

Emergency Phone
(example - not included)

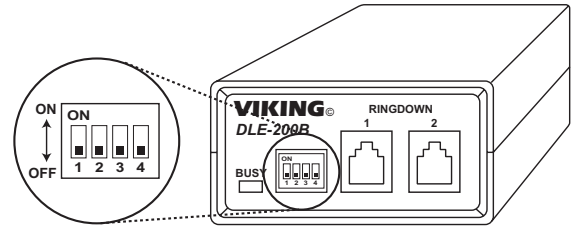
Installer/Programmer

Programming

Several features can be selected by changing switch settings on the front of the **DLE-200B**, by removing/installing internal jumpers or by removing/installing internal resistors. The **DLE-200B** is shipped in factory default programming for standard ringdown applications.

A. DIP Switch Programming

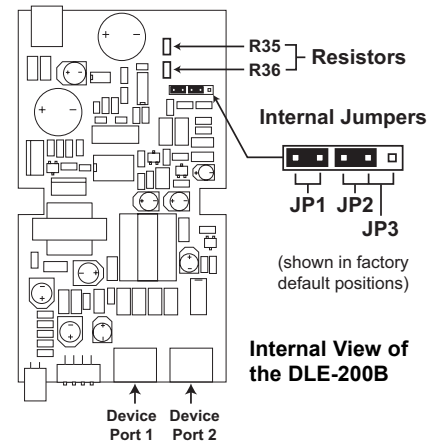
Switch 1	Switch 2	Ringdown Cadence
ON	ON	Long-Long
OFF	ON	Short-Short-Long
ON	OFF	Short-Long-Short
OFF	OFF	2 seconds ON, 4 seconds OFF (factory default)



Switch	Position	Description
3	ON	Decreases audio volume by 9 dB, may increase fax/modem connection speeds and help eliminate data errors
3	OFF	Standard audio volume (factory default)
4	ON	Immediate ringdown mode (no dial tone before ringdown)
4	OFF	2 seconds of dial tone before ringdown (factory default)

B. Internal Jumper Programming

Jumper	Position	Description
1	Installed	Ring until answered (factory default)
1	Removed	Maximum ring count of 5
2	Installed	Two-way ringdown (factory default)
2	Removed	One-way ringdown: Rings from device 1 to device 2 only
3	Installed	Ring down and dial tone off (remove JP2 and install across pins labeled JP3)
3	Removed	Ringdown and dial tone enabled (factory default) Note: See JP2 and DIP switch 4 programming.



Important: The **DLE-200B** components are sensitive to static electricity. Personnel and the work area should be grounded before handling.

C. Internal Resistor Programming

Before opening the **DLE-200B** chassis, disconnect the power. The internal components are sensitive to static electricity. Personnel and the work area should be grounded before handling. Remove **R35** or **R36** resistors by twisting with a small pliers. **Note:** Be careful not to cut the PCB traces or break adjacent components.

Resistor	Position	Description
R35	Installed	Enables the CPC break after hang-up (factory default)
R35	Removed	Eliminates the CPC break after hang-up
R36	Installed	2 second CPC break time (factory default)
R36	Removed	150ms CPC break time

Important: The **DLE-200B** components are sensitive to static electricity. Personnel and the work area should be grounded before handling.

Related Products



E-10/E-10-EWP E-20A/E-20A-EWP

? Need More Information on the E-10/E-20A?
Call (715) 386-4345 and select 210.

Provide Convenient Handsfree Communication

The **E-10** and **E-20A** are telephone line powered speaker phones designed to provide two-way handsfree communication. The **E-10** and **E-20A** can be connected directly to a C.O. line or analog PABX/KSU station when used in conjunction with a Hot-Line Dialer or programmed ring down circuit. The **E-10** and **E-20A** can also be used with Viking's **DLE-200B** ring down circuit. When the "Call" button is pressed, the **E-10** or **E-20A** will come off-hook and will remain off-hook until a CPC is detected or the pre-selected timeout has elapsed. The unit will then automatically disconnect. For outdoor or harsh environments, the **E-10** and **E-20A** are available with Enhanced Weather Protection (**EWP**). **Note:** The **E-10** and **E-20A** are not compatible for communication to each other. A standard phone should be used on one side of the **DLE-200B**.

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.