

VIKING

TECHNICAL Practice

TELECOM SOLUTIONS FOR THE 21ST CENTURY

DLE-300

**Advanced
Line Simulator**

March 4, 2002

Advanced Line Simulator for Communication, High Speed Data, Caller ID and Classroom Training



The **DLE-300** advanced Line Simulator provides sales people, technicians, engineers, etc. with a cost effective, easy to use method of conducting on-site demonstrations or diagnostics, eliminating the need to locate phone lines and disrupt the customer's phone service.

The Line Simulator provides two way communication between standard analog telecom products such as modems, fax machines, Key Systems, PABX's as well as standard telephones.

The **DLE-300** Line Simulator produces standard or distinctive AC ringing, DC talk battery, caller ID data, precise dial tone, ring back, busy, SIT, reorder tone, and provides CPC on disconnect.

Features

- Supports all high speed data
- Produces name and number caller ID data
- Audio input/output for recording voice prompts
- 40V DC talk battery
- Precise call progress tones (dial tone, ring-back, busy and reorder)
- Produces special interrupt tones
- Standard and distinctive 20 Hz AC ringing
- Provides CPC breaks after disconnect
- Touch Tone detection
- Ringdown mode (no Touch Tones required)
- 911 trainer mode for classroom training

Applications

- Point-to-point communications between phones, fax machines, and high speed modems without dedicated telephone lines
- Programming and recording voice products such as voice mail systems, etc.
- Intersystem TIE lines
- Courtesy and/or emergency phones
- Demonstrating telecom equipment at trade shows, meetings, etc.
- Diagnosing phone line dependent equipment with precise characteristics
- 911 trainer for schools and businesses



Phone...715.386.8861

Specifications

Power: 120V AC/13.8V AC 1.25A, UL listed adapter provided
Dimensions: 127mm x 127mm x 25mm (5" x 5" x 1.5")
Shipping Weight: .9 kg (2 lbs)
Environmental: 0° C to 32° C (32° F to 90° F) with 5% to 95% non-condensing humidity
Ringer Output: 6.0 REN load
Talk Battery: 40V DC
Loop Length: 4.2 km (2.6 mi) maximum - 24 AWG twisted pair
Maximum Data Speed: Unlimited
CPC Generation Time: 2 seconds
Connections: (2) RJ11 jacks

info@vikingelectronics.com

<http://www.vikingelectronics.com>

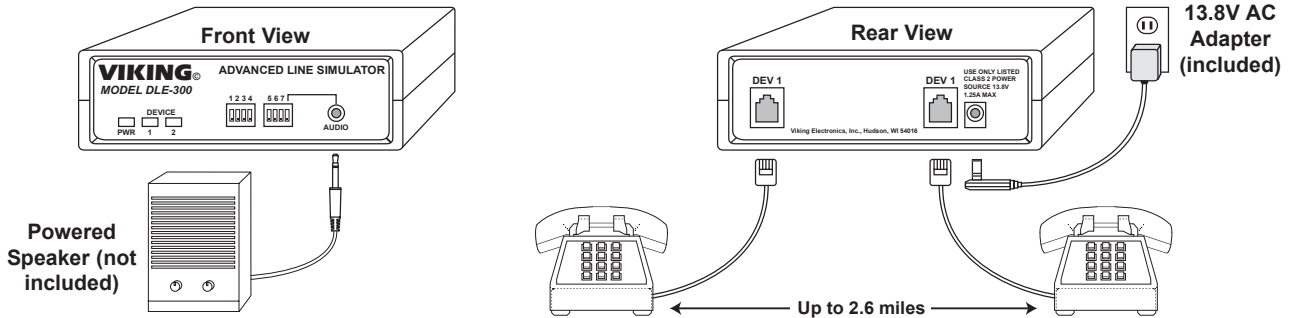
Installation and Applications



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.

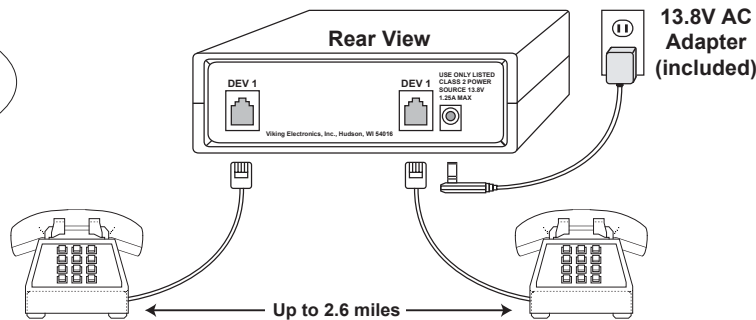
A. Demonstrations and Classroom Training

The DLE-300 is ideal for on-site product trainings at trade shows and perspective customer sites. It can also be configured as a 911 trainer for classrooms, etc.



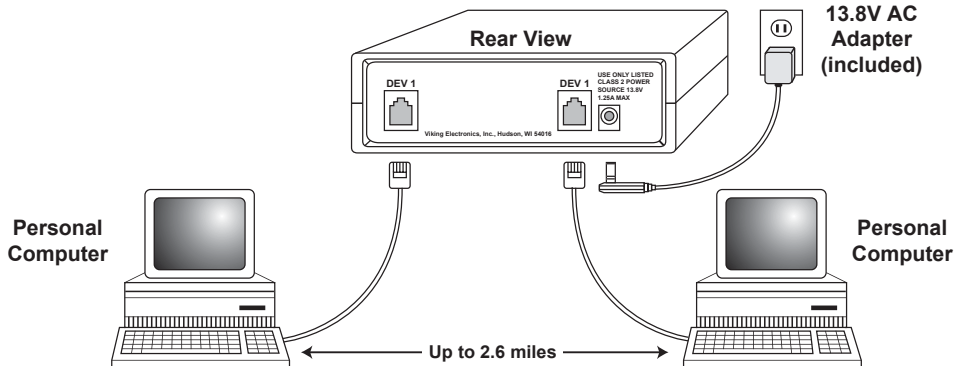
B. Point to Point Communication

The DLE-300 can be configured as a ringdown circuit for instantaneous point to point telephone communications.



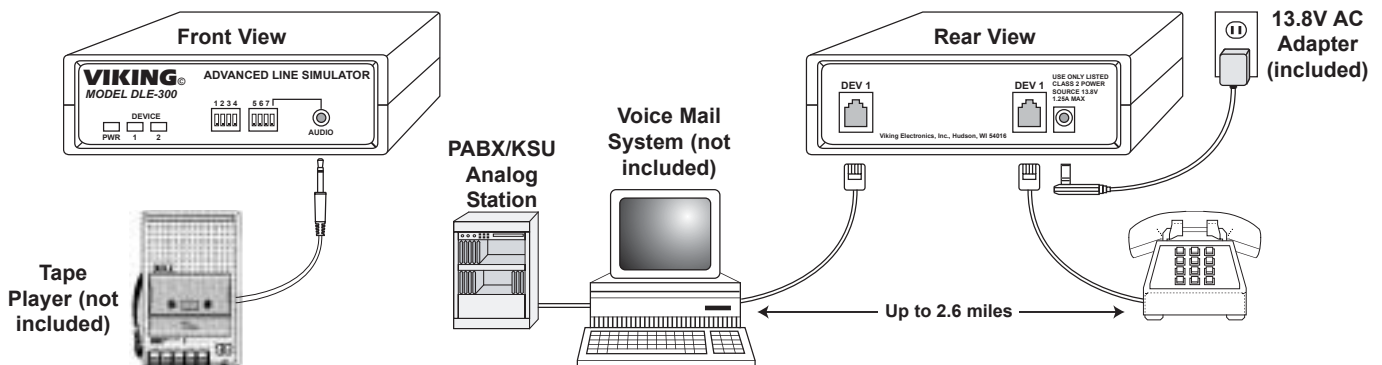
C. High Speed Data Communication

The DLE-300 will support the data speeds of your supporting peripherals.



D. Programming and Recording Voice Mail Systems and Other Voice Products

The DLE-300 can be configured as a ringdown circuit for instantaneous point to point telephone communications.



Programming



A. DIP Switch Programming

1. Ring Candence

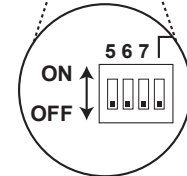
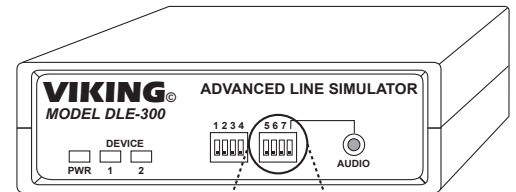
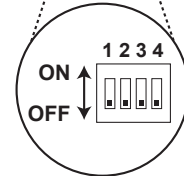
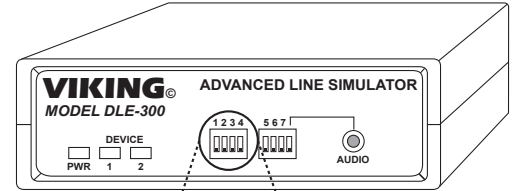
Switch 1	Switch 2	Description
OFF	OFF	Normal (2 seconds on, 4 seconds off)
ON	OFF	Short - long - short
OFF	ON	Short - short - long
ON	ON	Long - long

2. Tones

Switch	Off/On	Description
3	OFF	Standard dial tone
3	OFF	Stutter dial tone
4	ON	Disables special call progress tones
4	ON	Enables special call progress tones

3. Modes of Operation

Switch	Off/On	Description
5	OFF	Disables 911 mode
5	ON	Enables 911 mode
6	OFF	Disables ring down mode
6	ON	Enables ring down mode
7	OFF	2 second dial tone before ring (ring down mode)
7	ON	No dial tone before ringing (ring down mode)
8	OFF	High speed data communication
8	ON	Enables the AUDIO jack



B. Internal Jumpers

Removing internal jumpers may be used to disable specific features (see diagram right).

1. CPC signal

Remove shunt **JP1** to disable CPC signal.

2. Caller ID

Remove shunt **JP2** to disable all "Caller ID" data.

3. Ring Count

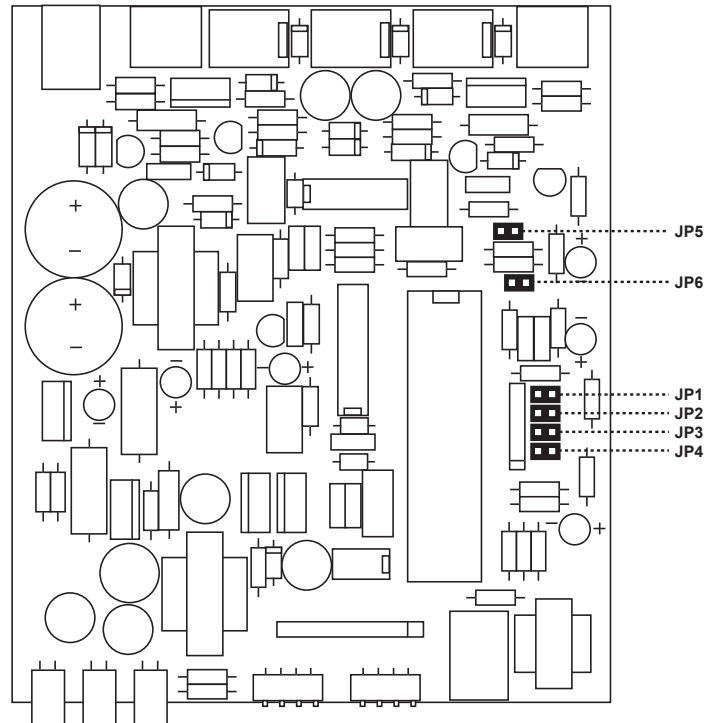
Remove shunt **JP3** to disable the maximum ring count.

4. Reorder

Remove shunt **JP4** to change the 10 seconds of reorder tone (fast busy) that are given when the other phone hangs up, to 10 seconds of continuous dial tone.

5. Attenuation

The two device ports are directly connected together offering no signal loss between the devices. Move shunt from **JP5** to **JP6** to attenuate the audio volume between the devices by 9 db (typical of most C.O. lines).



Operation

A. Normal Operation (all DIP switches OFF)

An off hook device is given dial tone. Any Touch Tone will break dial tone and two and a half seconds after a phone number is dialed, the **DLE-300** will ring the opposite port up to 10 times. Caller ID information is sent after the first ring. When the other device answers, the call is connected. The unit provides a CPC break and 10 seconds of reorder tones when either device hangs up.

B. Ring Down Mode (DIP switch 6 ON)

In this mode, the **DLE-300** does not require Touch Tones to be dialed to ring the other telephone device. An off hook condition on either port will trigger 2 seconds of dial tone and the opposite port will begin ringing. No caller ID data is sent. **Note:** To eliminate dial tone, set DIP switch 7 to ON.

C. Special Call Progress Tones (DIP switch 4 ON)

In this mode, the **DLE-300** may be activated to provide busy, reorder, S.I.T. and special continuous test tone. The tones are keyed off of the last digit dialed (see the chart to the right).

Last Digit Dialed	Special Call Progress Tones
1	Busy
2	Reorder
3	S.I.T (Special Interrupt Tone)
4	1004 Hz@-20dBm Test Tone
5	Silence
6	Standard ringback
7	Standard ringback
8	Standard ringback
9	Standard ringback
0	Standard ringback

D. Caller ID (DIP switch 4 ON)

Multi-message caller ID data is sent after the first ring. The information sent is keyed off of the second to last digit dialed (see the chart to the right).

Second to Last Digit Dialed	Caller ID Data Sent
1	715-386-8861, Viking Electron
2	Number withheld, Viking Electron
3	Number unavailable, Viking Electron
4	715-386-8861, name withheld
5	715-386-8861, name unavailable
6	Number and name withheld
7	Number and name unavailable
8	No data sent
9	No data sent
0	No data sent

E. 911 Mode (DIP switch 5 ON, DIP switch 6 OFF)

The **DLE-300** features a 911 mode for classroom training, etc. In this mode, the **DLE-300** will only allow calls to ring that have dialed 911. Any other number dialed will receive a busy signal. While in 911 mode, "911 Emergency" will be sent as the caller ID data whenever 911 is dialed.

F. Audio Jack (DIP switch 8 ON)

A 3.5mm audio jack is provided for an audio connection to the simulated lines. This is ideal for recording voice prompts on voice mail systems, recording, or amplifying the voice path. This connection is bi-directional so audio may be uploaded or downloaded. **Note:** Keep DIP switch 8 OFF when the **AUDIO** jack is not required for the best standard operation.



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.