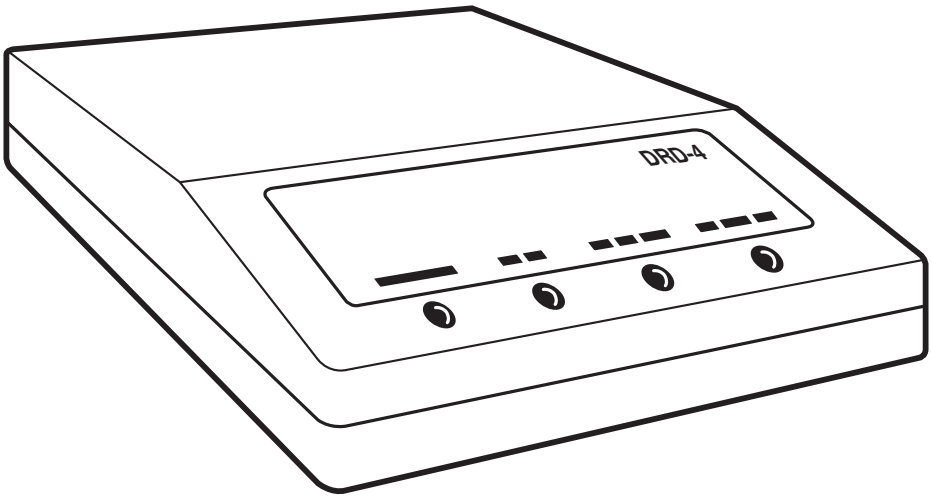




## DRD-4



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**CUSTOMER  
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INFORMATION**

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**FEDERAL COMMUNICATIONS COMMISSION  
RADIO FREQUENCY INTERFERENCE STATEMENT**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

"This digital apparatus does not exceed the Class A limits for Radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications."

"Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada."

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# 1. Specifications

**Speed** — Transparent

**Operation** — Transparent

**Diagnostics** — None

**FCC Registration** —  
BEQUSA-18976-KX-N

**Ringer Equivalency** — 0.6 B

**Connectors** — (5) RJ-11 female,  
(1) power

**Power** — 115 VAC, 60 Hz

**Size** — 1.75"H x 5.6"W x 6"D (4.4 x  
14.2 x 15.2 cm)

**Weight** — 3 lb. (1.4 kg)

## 2. Introduction

### 2.1 General

The DRD-4 deciphers the “Distinctive Ringing Service” provided by the telephone company. This service uses a single phone line for multiple phone numbers and assigns a unique ring identity to each number. Working with this service, the DRD-4 identifies and directs each of the four ring types to a designated telephone device. You can connect up to four different telephone devices to a single telephone line, giving you automatic operation and eliminating the need to flip switches and turn machines on or off.

**NOTE:** The name “Distinctive Ringing Service” may vary with each telephone company. This service may not be available in some locations. Contact your local telephone company to verify that the service is available in your area.

The DRD-4 is compatible with any telephone device that responds to a standard phone company ring signal. This guide defines a few of the more popular combinations used with the DRD-4.

### 2.2 Ports on the DRD-4

The rear panel of the DRD-4 includes five modular ports and a power input port, as shown in Fig. 2-1.

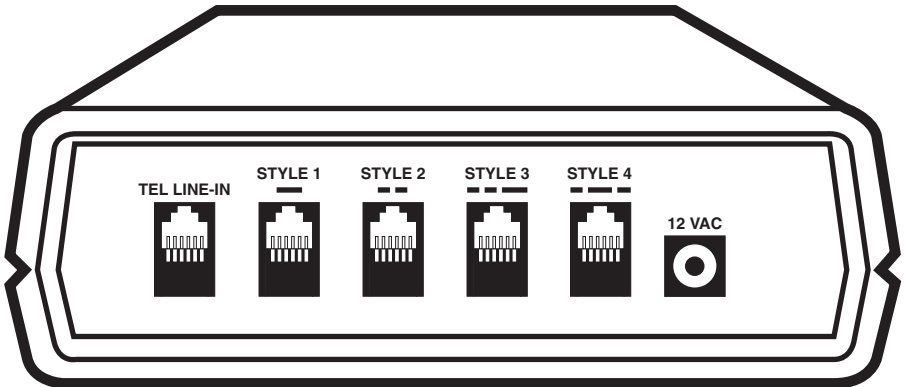
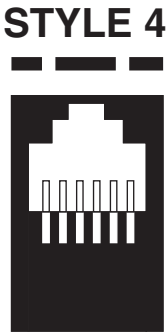


Fig. 2-1. Rear View of the DRD-4.

**STYLE 4 port**—This port rings with a short-long-short ring cadence. Use this port for any telephone device that you wish to respond to the



fourth phone number.

**Fig. 2-6. Style 4 Port.**

**NOTE:** The dashed lines above each port correspond to the port's unique ring cadence.

## 2.3 Functions of the DRD-4

The DRD-4 is compatible with any type of telephone device that responds to a standard phone-company ring signal. It functions as follows:

- The DRD-4 monitors the telephone line for the four distinctive ring cadences from

the phone company.

- The DRD-4 recognizes each ring cadence and automatically directs each call to its intended destination.
- The DRD-4 allows any phone directly connected to the unit to answer all phone calls during the ring signal. Once you answer a call, the DRD-4 will not allow any of its ports to interrupt a call to another port. This feature ensures your privacy during phone calls and guarantees data integrity when you use data equipment.

**NOTE:** Only the phones connected to a port will ring when calls are directed to that port, but you can answer those calls from other phones.

Connect your telephone equipment to the modular ports, as follows:

**TEL LINE-IN port**—The incoming telephone line plugs into this port.

## TEL LINE-IN

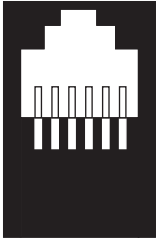


Fig. 2-2. Tel Line-In Port.

**STYLE 1 port**—This port rings with a standard phone company ring signal. Use this port for any telephone device that you wish to respond to the primary phone number.

## STYLE 1

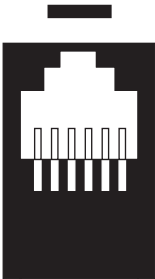


Fig. 2-3. Style 1 Port.

**STYLE 2 port**—This port rings with a short-short ring cadence. Use this port for any telephone device that you wish to respond to the second phone number.

## STYLE 2

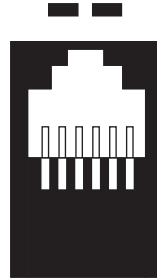


Fig. 2-4. Style 2 Port.

**STYLE 3 port**—This port rings with a short-short-long ring cadence. Use this port for any telephone device that you wish to respond to the third phone number.

## STYLE 3

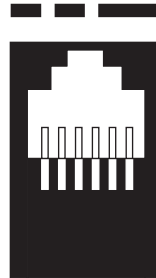


Fig. 2-5. Style 3 Port.

## 3. Installing the DRD-4

You can install the DRD-4 on any system with single- or two-line phones, including key service unit (KSU) or private branch exchange (PBX) multiple-line phone systems. This chapter explains how to install the DRD-4 in four different phone configurations:

- A single line
- A single line that maintains exclusion
- Two lines with single-line and two-line phones (with the DRD-4 connected to one extension)
- A KSU/PBX system

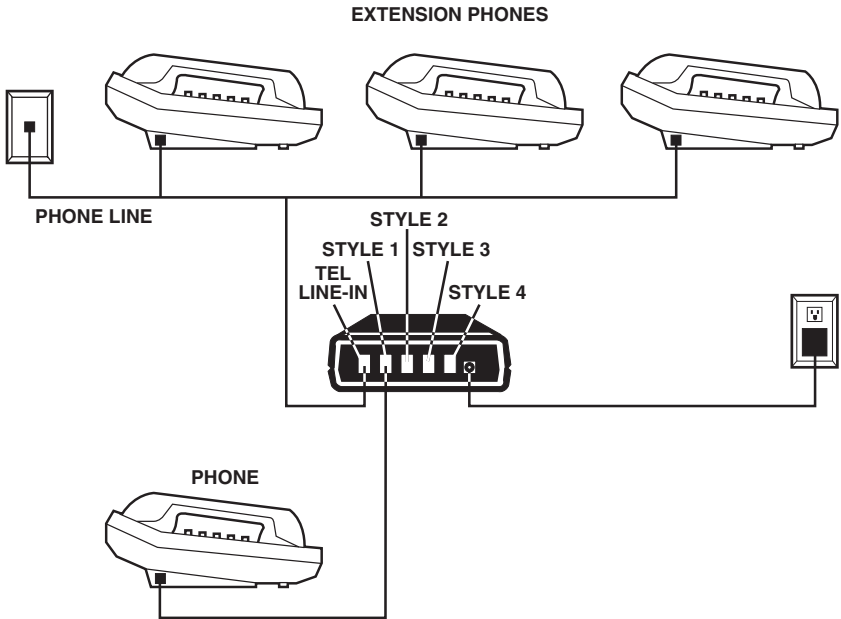
To install the DRD-4, you will need the telephone cable (included) and an additional cable for each device you wish to connect to the DRD-4.

If the equipment you wish to connect to the DRD-4 is not located near the unit, you may need extension cables.

### 3.1 Installing the DRD-4 on a Single Line

Fig. 2 shows the DRD-4 installed on a single telephone line.





**Fig. 3-1. Installing the DRD-4 on a Single Telephone Line.**

To install the DRD-4 on a single line, follow these steps:

1. Plug the small end of the AC power cord provided with your unit into the plug labeled "12VAC" on the back of the DRD-4.
2. Plug the AC adapter into any standard 110-volt outlet. The green indicator lights on the front of the unit momentarily flash on and off in a self-test pattern. The lights then remain off.
3. Plug one end of the telephone cable provided with the DRD-4 into the TEL LINE-IN port on the back of the unit.
4. Plug the other end of the telephone cable into the wall jack.
5. Connect your telephone equipment to the ports corresponding to the appropriate telephone numbers.

**NOTE:** With the installation shown in Fig. 3-1, calls will only be routed to phones connected directly to the DRD-4. Phones not connected directly to the DRD-4 will ring with each ring cadence and will be able to interrupt any call. For total automatic operation and protect against interruption, install the DRD-4 as shown in Figure 3-2.

**NOTE:** You should be familiar with telephone wiring to complete this installation. Call Technical Support for instructions or contact a professional installer.

### **3.2 Installing the DRD-4 on a Single Line with Multiple Phones and Maintaining Exclusion**

When you connect the DRD-4 to a single line with multiple phones, you may want to maintain exclusion. Exclusion means that if one phone line is in use and you pick up a phone on another line, the first phone line is not interrupted and you get a busy signal. To maintain exclusion, the incoming phone line must terminate at the DRD-4, and all phones must connect to the DRD-4 ports. See Fig. 3-2.

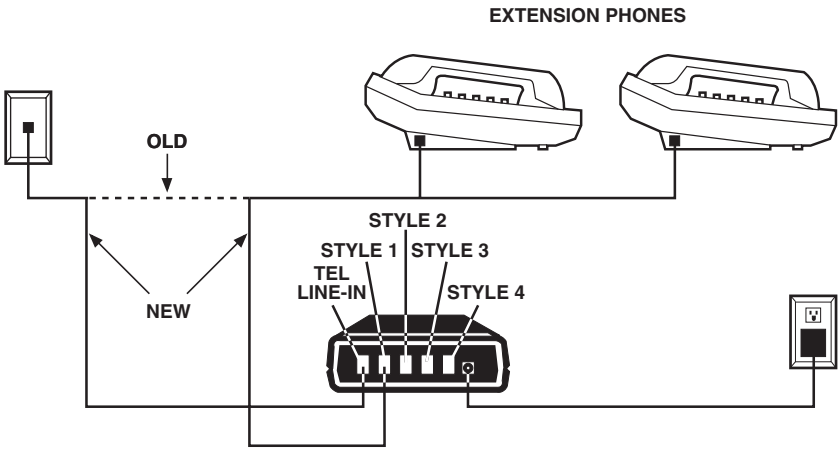


Fig. 3-2. Installing the DRD-4 on a Single-Line, Multiple-Phone System Maintaining Exclusion.

### 3.3 Installing the DRD-4 on Two Lines with Single-Line and Two-Line Phones (with the DRD-4 connected to one extension)

This arrangement typically occurs in homes with a primary line (residence number) and a private business line (home business number). Both lines may be accessible by any number of extension phones.

**NOTE:** If you have two lines but only one phone can access line two (the business line), use the single-line Installation procedure described Section 3.1. If you have two lines and a two-line phone, use the Installation procedure described in this section.

For this procedure, you will need two three-way adapters, which you can purchase from any telephone or electronic equipment dealer. See Fig. 3-3 for a close-up of the three-way adapter. See Fig. 3-4 for an illustration of the installation.

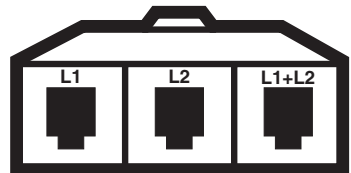


Fig. 3-3. A Three-Way Phone Adapter.

1. Plug one three-way adapter into the wall jack.
2. Plug the other three-way adapter into the two-line telephone jack labeled "L1+L2."
3. Plug one end of a phone cable into the L1 port on one of the three-way adapters. Plug the other end of the cable into the L1 port on the other three-way adapter.
4. Plug a phone cable into the L2 port on the wall mounted three-way adapter. Plug the other end of the cable into the TEL LINE-IN port on the rear of the DRD-4.
5. Plug a phone cable into the STYLE 1 port on the rear of the DRD-4. Plug the other end of the cable into the L2 port on the three-way adapter on the telephone.
6. Connect the rest of your equipment to the corresponding ports.

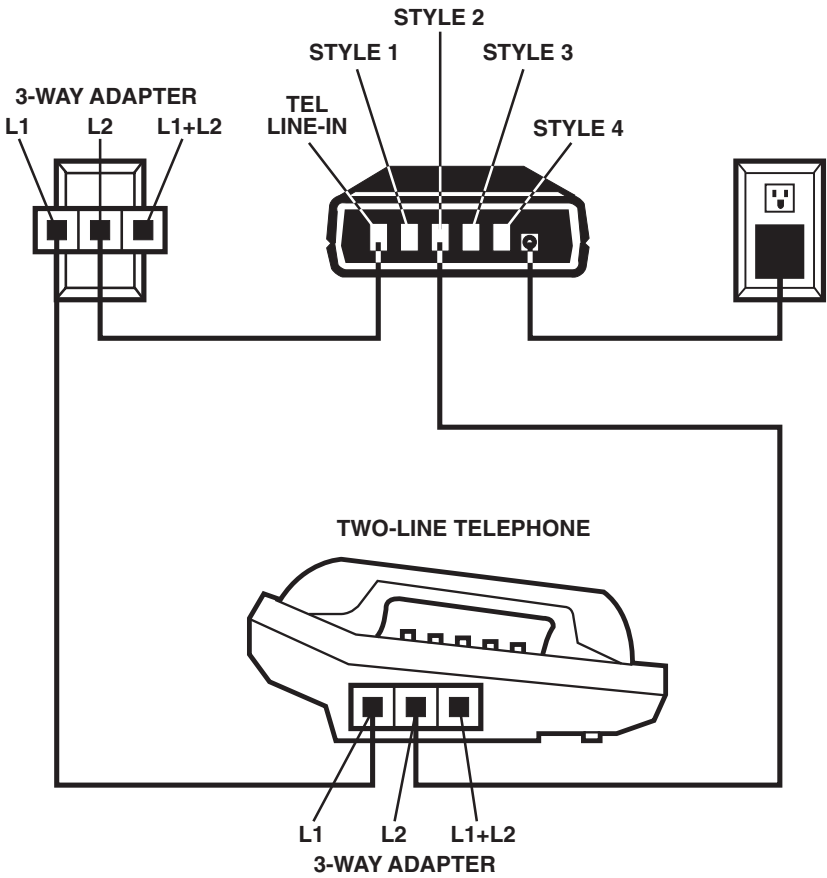


Fig. 3-4. Installing the DRD-4 with a Two-Line Phone Using Three-Way Adapters.

### **3.4 Installing the DRD-4 on a KSU/PBX System**

With a KSU/PBX (commonly used in medium or large offices), calls coming in over two or more lines can be routed to any number of extensions. A KSU typically features call holding, music-on-hold, conference calling, and Intercom paging.

Fig. 3-5 shows the DRD-4 connected to a KSU phone system. For the DRD-4 to operate correctly with such a system, you must install it in front of the KSU or PBX—directly to the incoming phone line (the last line in rollover). You must connect all other devices on that line (TAD, KSU, fax, auxiliary device) directly to the DRD-4.

**NOTE:** To complete this installation, you must be familiar with KSU/PBX wiring.

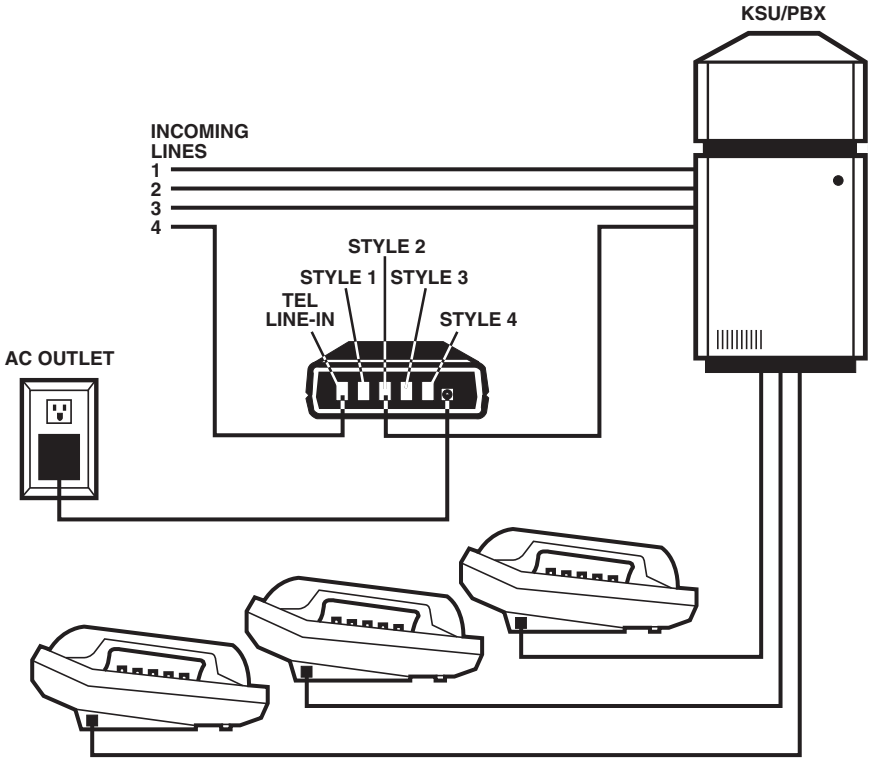


Fig. 3-5. Installing the DRD-4 on a KSU Phone System.

## 4. Using the DRD-4

You can connect the DRD-4 to any four telephone devices. The DRD-4 will automatically direct all incoming calls to their intended destinations. If you are using any data devices, such as a fax or a computer, set the devices to answer on the second or third ring.

You can make outbound calls from any port on the DRD-4. Once you take a phone off the hook, the DRD-4 blocks other ports from interrupting the initial call. Therefore, you must directly dial any calls placed from data equipment, such as a fax or a computer, from the equipment itself or from a phone connected directly to it.

DRD-4 applications are unlimited. Following are examples of ways in which calls can be directed.

The DRD-4 can direct incoming calls to any of the following types of devices, with each device answering calls to a different phone number:

- Home or office telephones
- Call forwarders
- Answering devices in your home or office
- Voice mail
- Home or office computers

- Fax machines
- Order-taking systems
- Bulletin-board systems

You can use different phone numbers to direct calls to particular people or departments.

- Family members
- Roommates
- Departments in your business

You may also distribute different phone numbers to different contacts:

- Vendors
- Distributors
- Different geographic locations

**NOTE:** Call-waiting signals may disrupt fax or computer transmissions.

**The DRD-4 cannot process any calls received on a line for which call forwarding has been activated.**



# 5. Troubleshooting

**Table 5-1. Troubleshooting Chart.**

<b>Problem</b>	<b>Solution</b>
When I pick up a phone, I interrupt another call.	Connect the DRD-4 as shown in Section 3.2.
One of my telephone devices won't respond to the DRD-4.	<ol style="list-style-type: none"> <li>1. Check all wiring connections.</li> <li>2. Set the telephone device to its proper auto-answer settings.</li> <li>3. Plug the device directly into the telephone extension outlet and check for a response with the same phone number.</li> <li>4. Replace the device with another device to confirm response.</li> <li>5. Call Technical Support for more assistance.</li> </ol>
There is no dial tone, and no LEDs are lit.	<ol style="list-style-type: none"> <li>1. Check the connection between the telephone device and the DRD-4.</li> <li>2. Check the AC power connection.</li> </ol>
There is no dial tone, and one LED is lit.	Check the connection between the DRD-4 and the phone company.



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