

RingRite+ Manual

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What is Distinctive Ringing?

RingRite+ is designed to be used in conjunction with Distinctive Ringing services offered by many telephone companies in the United States and Canada.* These services allow up to three additional telephone numbers to be assigned to an existing phone line. Each of the assigned numbers, when called, causes the line to ring with a different, distinctive, ringing pattern. When a particular ringing pattern is heard, the user knows what number was dialed, and can answer the phone appropriately.

These Distinctive Ringing Services are available for a fraction of the cost of leasing an additional telephone line, making them an attractive alternative to a separate phone line. Keep in mind, however, that with this service, there is still only one installed telephone line, and two calls cannot take place simultaneously on the line as could be done with two separate phone lines.

* This service is called Custom Ringing by Qwest, IdentiaRing, Ringmate, and Smart Ring in different Verizon areas, RingMaster by BellSouth, Multi Ring by Ameritech, Personalized Ringing by Southwestern Bell, and a variety of other names by other local phone companies.

What RingRite+ Does

When a call arrives with a distinctive ringing pattern, the ringing pattern lets people know what distinctive ringing number was dialed, and they can then determine how to answer the phone. However, telephone devices such as fax machines, modems, and answering machines do not know the difference between ringing patterns and will attempt to answer all incoming calls on the line. Installing RingRite+ on a line with distinctive ringing will assure that each telephone device answers only the calls intended for it.

RingRite+ is connected to a telephone line that has the Distinctive Ringing service, and telephone devices are then connected to the RingRite+ ports. When a call comes in, RingRite+ determines what ringing pattern is present and then passes the ringing pattern through to its proper port, causing the telephone device(s) connected to that port to ring. When a telephone

device connected to RingRite+ is using the line, other devices attached to RingRite+ are prevented from interrupting the call, and users attempting to access the phone line will hear a fast busy signal.

With RingRite+ installed, outgoing calls are made as usual. Because RingRite+ does not actively “answer” an incoming call, most telephone company features are compatible with RingRite+, including Call Waiting, Call Forwarding, and 3-Way Calling. RingRite+ will not interfere with Caller ID information but it will not always pass this information on to devices connected to its ports; for more information on Caller ID, see page 8.

Note: Call Waiting can interrupt fax and modem transmissions and thus should be used with caution on lines that are used primarily for fax or modem calls. These interruptions, should they occur, have nothing to do with the operation of RingRite+.

Common Applications

RingRite+ is commonly used to share a single phone line with multiple telephone devices, thus saving users the expense of costly dedicated phone lines. Common applications include:

- Sharing a phone line for phone(s) and FAX use
- Sharing a phone line for phone(s) and MODEM use
- Sharing a phone line for FAX & MODEM use
- Sharing a phone line for phone(s), FAX & MODEM use
- Sharing a phone line with a business phone system (Key system or PBX) and FAX and/or MODEM
- Sharing a phone line for business phone and home phone use
- Sharing a phone line with more than one answering machine

The examples later in the manual show some of the common RingRite+ installations.

Connecting RingRite+ to the Phone Line

SINGLE LINE INSTALLATION

If RingRite+ is being used in an environment that has just a single phone line, RingRite+ can be connected directly to any regular telephone wall jack, using its supplied line cord. The ports of RingRite+ are labeled "1 RING," "2 RINGS," and "3 RINGS," corresponding to the number of rings in the distinctive ringing pattern that RingRite+ will direct to each port. Attach each telephone device to be controlled by RingRite+ to the port with the appropriate number of rings in the ringing pattern that the device is to answer. (For example, if the distinctive ringing pattern for the fax is Short Ring-Short Ring, the fax will be connected to the RingRite+ port labeled "2 RINGS.") Lastly, the RingRite+ power transformer is connected to the power jack on the front of the unit, and then to a standard AC power wall jack. RingRite+ is now ready to route calls to the proper telephone device. Examples 1, 2, 4, and 5 show some common single line installations.

TWO LINE INSTALLATION

Occasionally, there may be two phone lines wired to some or all of the telephone wall jacks in a home or office. If this is the case, each wall jack has 4 wires, where the center 2 wires are used for Line 1 and the outside pair of wires is used for Line 2.

If Line 1 has the distinctive ringing feature, RingRite+ can be connected to the telephone wall jack as described in the Single Line Installation above. Phones that are connected to the "1 RING" port of the RingRite+ will be able to answer incoming calls on either line. (The "1 RING" port of the RingRite+ lets calls take place on both pairs of phone wires in this type of installation.) The second phone line will not interfere with the "2 RINGS" or "3 RINGS" ports of the RingRite+; these ports will only respond to the distinctive ringing patterns on Line 1.

If Line 2 has the distinctive ringing feature (where RingRite+ is to be connected to a telephone wall jack with Line 2 active on the outside pair of wires), then a telephone line adapter will need to be installed on the telephone wall jack ahead of RingRite+. This adapter will make Line 2 appear on the center two wires of the adapter jack. Any store that carries phone supplies should have this type of adapter for a few dollars (ask

for an adapter that converts a two-line wall jack into two separate jacks with one line in each jack). RingRite+ is then connected to the jack of the adapter that carries Line 2 only. Telephone devices are connected to RingRite+ as described above. Calls to Line 1 will not ring to any RingRite+ ports.

MULTIPLE LINE INSTALLATION

RingRite+ can also be used in applications where a multiple-line phone system (Key system or PBX) is installed. In this environment, RingRite+ is connected directly to the phone line that has the distinctive ringing feature. (Phone companies often require that the line with distinctive ringing services be a "terminating line," or one that does not allow calls to "roll over" to another phone line.) RingRite+ is connected to the phone line before the phone system, as shown in Example 3, and incoming calls are routed to the phone system from one of the RingRite+ ports. Other telephone devices are then connected directly to the other RingRite+ ports, rather than to the phone system's extension ports. This type of installation may require professional assistance from a local phone installer. Example 3 shows this type of installation.

Connecting Devices to RingRite+

Selected Devices Connected to RingRite+

For most RingRite+ applications, it is satisfactory to connect RingRite+ to a telephone wall jack and then connect only selected telephone devices to the RingRite+ ports. The devices usually attached to RingRite+ are "auto-answer" devices, such as fax machines, modems, and answering machines, that would otherwise try to answer all incoming calls. RingRite+ will route incoming calls properly to the attached telephone devices and provide exclusion between these connected devices.

With this type of installation, however, telephone equipment that is not connected to RingRite+ will ring with all incoming ringing patterns, and the user will need to determine which calls to answer. Also, any telephone device not connected to RingRite+ will be able to access the line at any time and can potentially barge in on a call in progress. Most small business and home office environments, where all telephone

equipment is in a small area, work well with this type of installation, which is shown in Example 1.

All Telephone Devices Connected to RingRite+

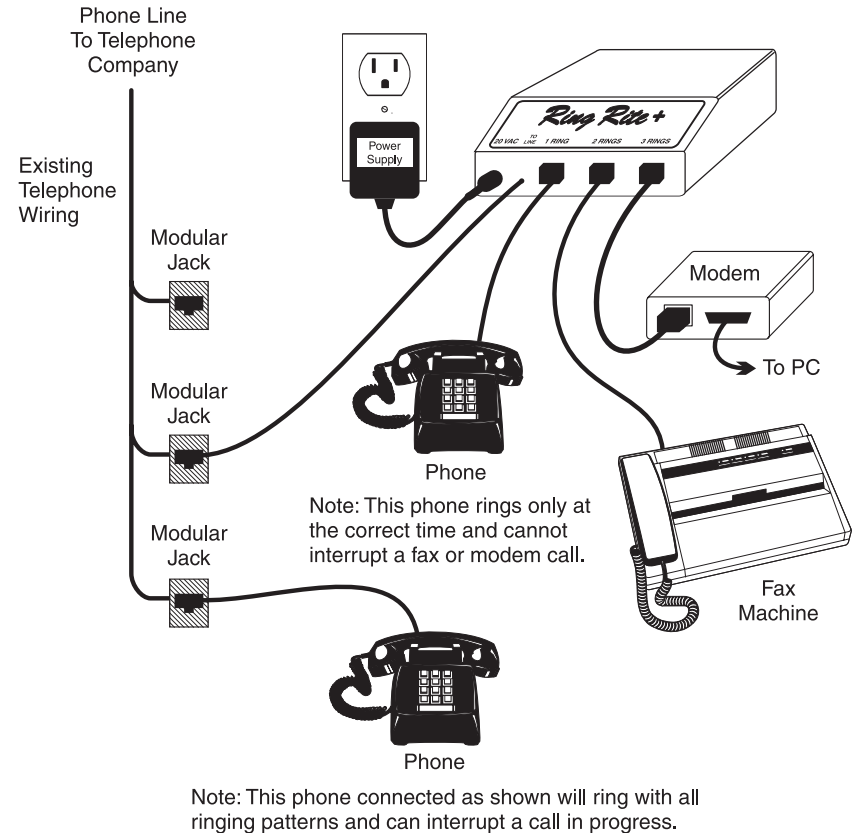
In some applications, it may be preferable to install RingRite+ at the beginning of the phone line and have all devices on the phone line be routed through the RingRite+. This type of installation ensures that every telephone device on the line rings with only the distinctive ringing pattern assigned to it, and that all devices on the line are prevented from seizing the line when it is in use. This type of installation is also desirable when a multi-line phone system (PBX or Key system) is in use. This type of installation is shown in Example 2.

Power Failure Operation

RingRite+ is powered by a small, plug-in AC transformer that requires 100-130VAC, 60Hz (normal voltage in the United States). Should power fail, or should the unit be disconnected from power, RingRite+ will connect all telephone devices attached to its "1 RING," "2 RINGS," and "3 RINGS" ports directly to the phone line. This means that: 1) all telephone devices will be able to make outgoing calls; 2) all telephone devices will receive incoming calls with all ringing patterns, if these devices are still powered; and 3) there will no longer be any exclusion or barge-in protection between telephone devices connected to RingRite+.

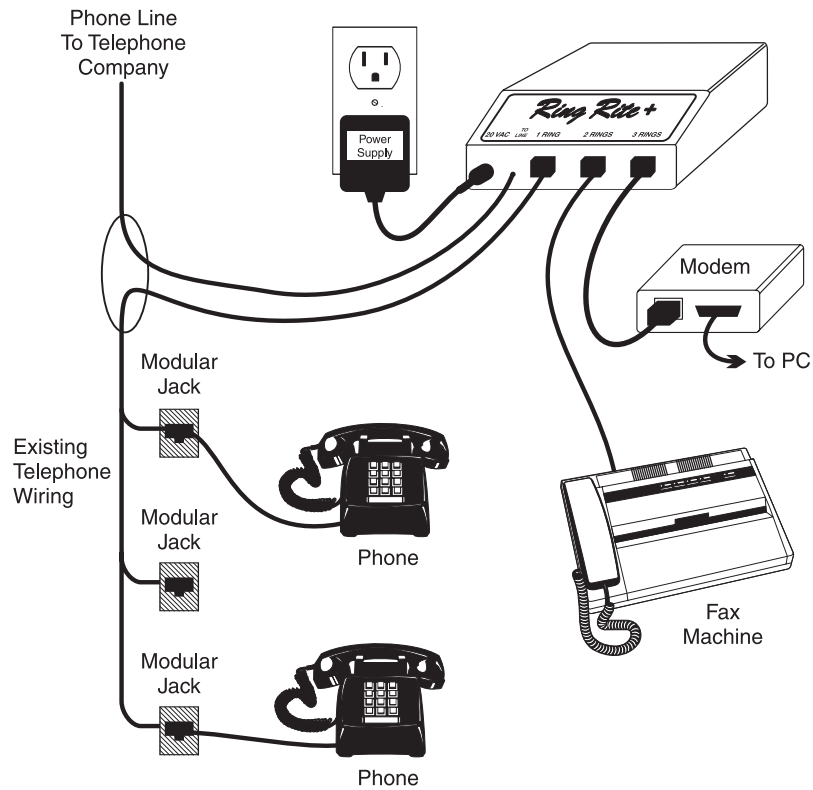
Example 1

Installing the RingRite+ to Control Selected Devices on a Phone Line



Example 2

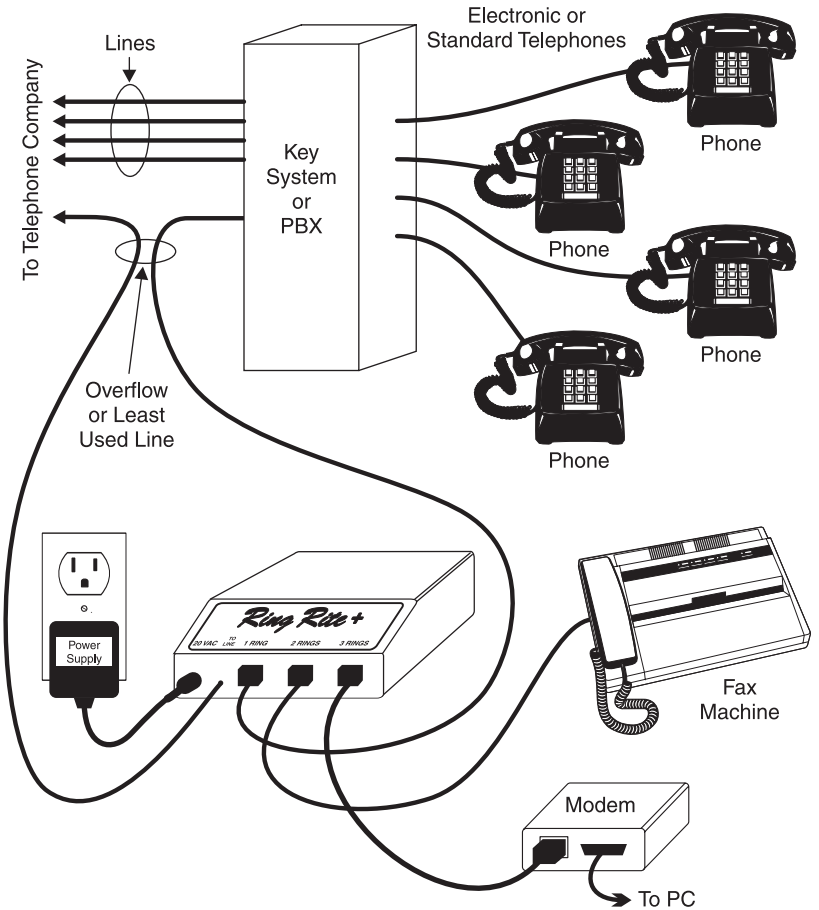
Installing the RingRite+ to Control All Devices on the Phone Line



Note: All phones and other telephone devices connected to wall jacks will receive only the one-ring pattern and will not be able to interrupt fax or modem calls.

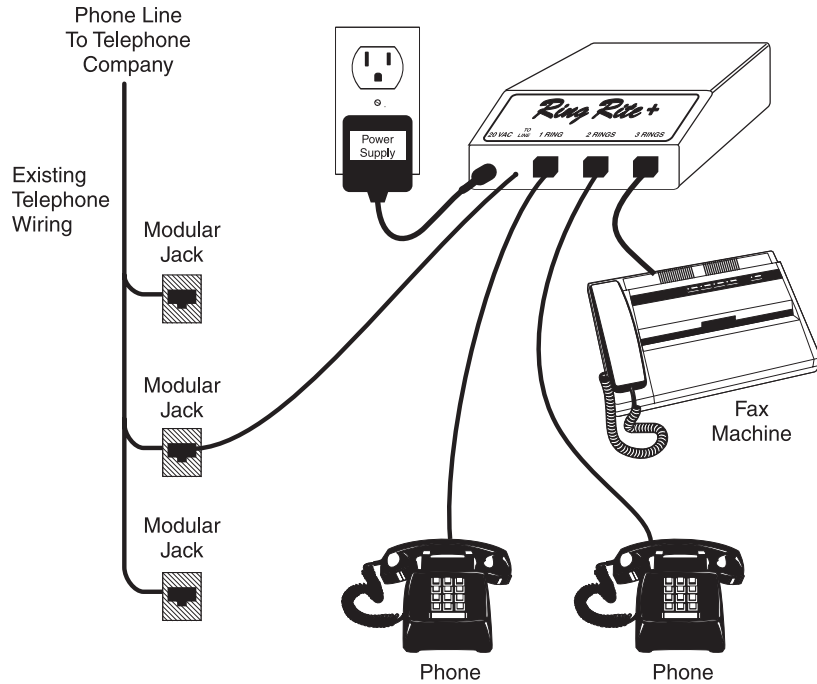
Example 3

Installing the RingRite+ with a Key System or PBX



Example 4

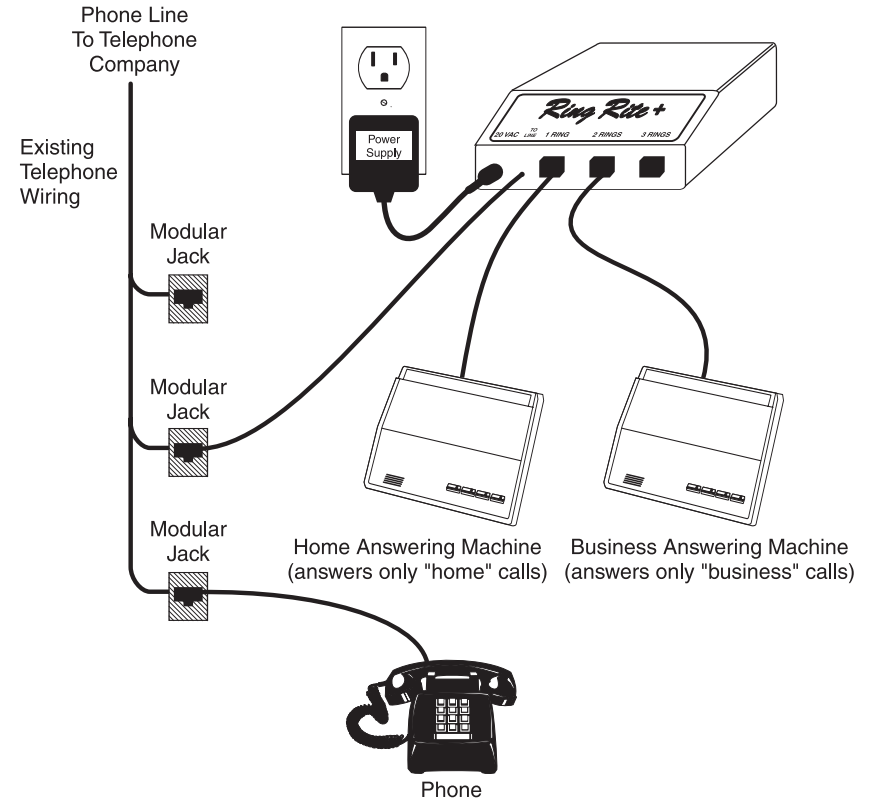
Control Calls to Two Phones and a Fax



Note: Each phone will only be able to answer calls for its own ringing pattern, and cannot interrupt calls on the other phone.

Example 5

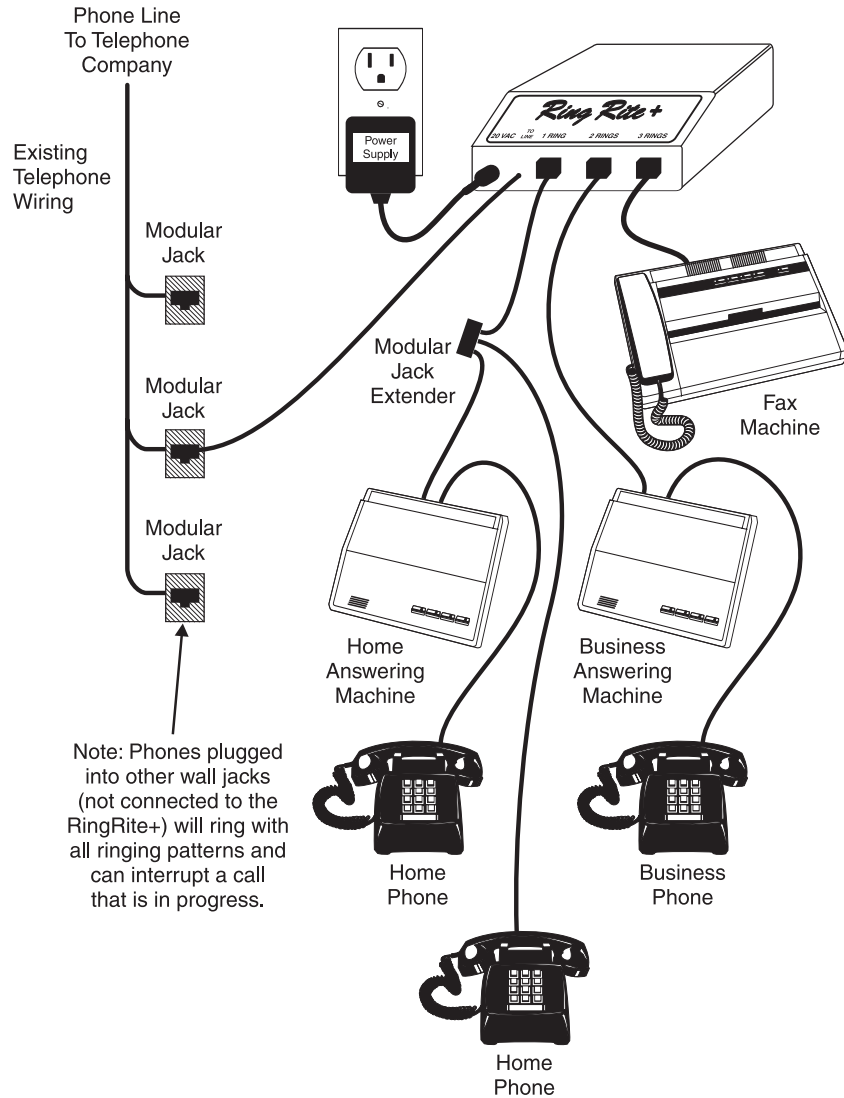
Control Calls to Two Answering Machines



Note: This phone can be used to answer both "home" and "business" calls, depending on the ringing pattern.

Example 6

Control Calls to Multiple Devices from a Single Wall Jack

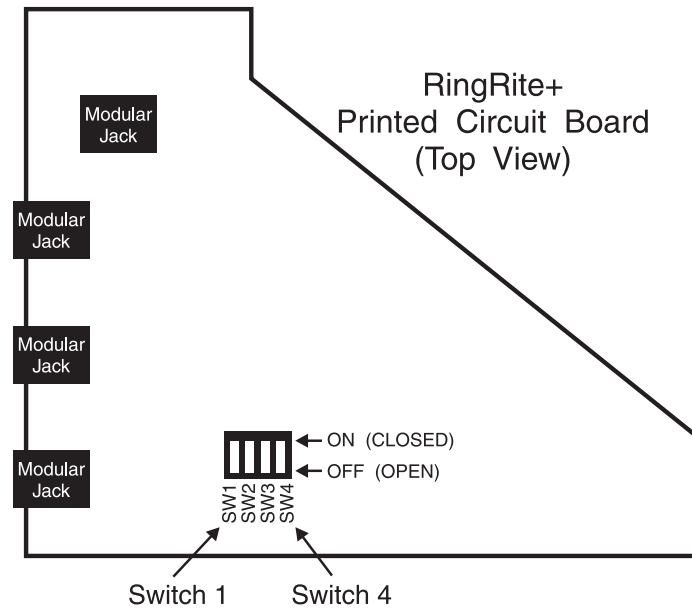


Optional Settings

As described previously, RingRite+ basically functions to pass RINGING to the proper device connected to it. RingRite+ also provides EXCLUSION to keep inappropriate devices from accessing the phone line, both during ringing and while a call is in progress.

RingRite+ comes from the factory set to perform these functions as the majority of users want them performed. However, in some instances, a change in the way RingRite+ provides RINGING to its ports, or the way it provides EXCLUSION, might be necessary to have it perform optimally for a particular application.

Changing how RingRite+ provides RINGING and EXCLUSION is done by removing the cover of the RingRite+ and adjusting the settings of four dip switches that are located on the RingRite+ circuit board, as shown below:



Exclusion Settings	Switch 1	Switch 2
Normal Exclusion	ON (CLOSED)	ON (factory default) (CLOSED)
Exclusion Disabled During Ringing	ON (CLOSED)	OFF (OPEN)
Emergency Override	OFF (OPEN)	ON (CLOSED)
Exclusion Disabled	OFF (OPEN)	OFF (OPEN)

Ringling Settings	Switch 3	Switch 4
Normal Ringing	ON (CLOSED)	ON (factory default) (CLOSED)
Single Ring to Device	OFF (OPEN)	ON (CLOSED)
Early Ringing	ON (CLOSED)	OFF (OPEN)
Analyze Two Ring Bursts	OFF (OPEN)	OFF (OPEN)

Ringling Settings

Normal Ringing

In order for RingRite+ to connect the proper ringing pattern to the correct port, the first ringing burst* received by RingRite+ is absorbed and analyzed. Subsequent ringing bursts are connected through to the correct RingRite+ port exactly as they are received. This is the default setting for RingRite+.

* A "ringing burst" is the period of time that a phone actually rings. A normal (non-distinctive) ringing burst is usually a long ring followed by a pause and then another ringing burst (another long ring). With distinctive ringing services, a typical ringing burst is broken up to contain multiple rings within each burst (e.g., two short rings followed by a pause and then another burst of two short rings). RingRite+ counts the number of rings in each burst to determine whether to send the call to the "1 RING," "2 RINGS" or "3 RINGS" port.

Single Ring to Device

Some older telephone devices, particularly older answering machines, will receive a 2-ring or 3-ring distinctive ringing pattern and count this as two or three separate rings, rather than as a single ring burst. This can cause telephone devices to answer incoming calls sooner than an application may require. Changing this

RingRite+ setting allows RingRite+ to perform just as described in the Normal Ringing mode, but when it passes a ring burst through to the proper device, it sends only one of the rings from the distinctive ringing pattern and suppresses the other rings in each burst. This allows the affected device to only see a single ring no matter what ringing pattern was received by RingRite+. However, since this ring is shorter than a standard single ring, some devices may not recognize it as a ring; for this reason, it may be better to set the offending device to answer on a later number of rings rather than using this RingRite+ setting.

Early Ringing

When the ringing burst being analyzed by RingRite+ contains only a single ring (ringing longer than 1.2 seconds), RingRite+ can often determine this pattern prior to the end of the first ring burst. When set to the Early Ringing mode, RingRite+ will pass through the remainder of this first ringing burst (after determining it is a single ring pattern) to the "1 RING" port, rather than waiting for the second ring burst to begin ringing the device. This setting is useful for installations with a phone system connected to the "1 RING" port, as it allows businesses to receive voice calls sooner.

This setting also usually results in Caller ID information being passed through to whatever devices are connected to RingRite+'s "1 RING" port. For this reason, Early Ringing is a good setting to use for Caller ID applications, as long as the initial ringing burst from the phone company is reliable. For more information on Caller ID, see page 8.

Analyze Two Ring Bursts

In some parts of the country, distinctive ringing services are not always delivered reliably in the first ringing burst. This phone company problem can cause incoming calls to go to incorrect devices. In this situation, RingRite+ can be set to absorb and analyze the first two incoming ring bursts rather than just the first ring burst. This will direct calls more accurately but will also delay the answering of any incoming call by the time period of another ring; for this reason, the "Analyze Two Ring Bursts" mode should only be used if calls are being repeatedly directed to the incorrect device.

Exclusion Settings

Normal Exclusion

RingRite+ will direct incoming calls to only one of its ports at a time. While this port is ringing, and while a call is in progress, RingRite+ prevents devices connected to its other ports from answering the call or interrupting the call. Other devices trying to access the line will get a fast busy signal generated by RingRite+. RingRite+ also provides exclusion during outgoing calls on a first-come, first-served basis, and prevents devices on other RingRite+ ports from barging in on calls in progress. This is the default RingRite+ setting.

Exclusion Disabled During Ringing

In some cases, users may want to answer an incoming call on a phone that is connected to a different RingRite+ port than the one that is receiving ringing. This is particularly helpful in home installations where two phones are connected to different RingRite+ ports (as in Example 4), or where a phone on a fax machine is also used to make and receive voice calls. If this optional setting is selected, RingRite+ will allow a call to be answered by any device connected to any of its ports, after ringing has started. (The other ports will not ring, but they will be able to answer the call by going off-hook.)

Emergency Override

In some business or home environments, users feel it is important to be able to access an outgoing line for priority business calls or to make an emergency call. If this setting is selected, the device(s) connected to the "1 RING" port of RingRite+ will be allowed to access the line at any time, or answer any incoming call, by going off-hook for a continuous 4-second period, or by going off-hook twice during a 4-second period. This override option, if activated, will cause the current call in progress to be terminated, and the device on the "1 RING" port can then hang up, go off-hook again, and get dial tone to make an outgoing call.

Exclusion Disabled

In this mode, RingRite+ provides NO barge-in protection on the line. Any device connected to RingRite+ can answer any incoming call to any RingRite+ port after the first ring, and any device can pick up the line in the middle of any incoming or outgoing call. This capability is useful when two or three people are sharing one line and want to have the other person pick up the line

during a call, or if all people want to answer an incoming call from any telephone device.

Changing the Options

To change the RingRite+ dip switch settings, first expose the circuit board of the unit. To do this, unplug all the cords, including the AC power transformer, from the unit. Then remove the four Phillips screws on the back of the unit. Now, turn the unit over and lift off the top of the enclosure.

The dip switches are located as shown on the previous printed circuit board diagram. The dip switches can be changed for the different optional settings as shown in the previous chart (following the diagram). It is recommended that this operation be performed on a clean, flat surface in a static-free environment. When done, reassemble the unit, being careful to line up the bottom and the top of the RingRite+ box properly.

WARNING: This product is comprised of sensitive electronic components that must be treated with care. To avoid damaging the unit, do not expose the circuit board to extreme heat or cold, water, or static.

Using RingRite+ with Caller ID

RingRite+ is not specifically designed to work with Caller ID signals from the phone company. However, in most cases, it is possible to obtain satisfactory pass-through of Caller ID information. This is done in two ways:

1) Since RingRite+ does not answer the incoming call, Caller ID signals will come through to all telephone devices that are connected directly to the phone line, rather than to the RingRite+. For example, telephones that are connected to wall jacks, rather than to a RingRite+ port, will receive Caller ID signals normally. These phones will ring with all distinctive ringing patterns, but you will be able to tell from the ringing pattern whether or not to answer the call, and calls that

you do not answer will automatically be routed by the RingRite+ to the appropriate device.

2) If RingRite+ is set to the "Early Ringing" mode (see page 7), Caller ID information will be passed through to all devices connected to RingRite+'s "1 RING" port in most cases. Caller ID information will not be passed through to devices connected to the "2 RINGS" or "3 RINGS" ports; in addition, Caller ID signals may occasionally not be passed through to the "1 RING" port if the first ringing burst is not complete coming from the phone company.

WARRANTY

Call Management Products Inc. (CMP) warrants this product, so far as the same is of its own manufacture, against defects in material and workmanship under the normal use and service for which it was designed, for a period of two years from date of initial end user purchase. CMP's obligation under this warranty is limited, however, to the replacement or repair, at its option, to a part or parts determined by it to be defective. Necessary packing and transportation costs for the return of the goods shall be paid by the buyer. All replacement or repaired goods will be returned prepaid by CMP. This limited warranty does not include damage resulting from accident, abuse, or non-factory modification of the product. Contact CMP prior to any returns for a return authorization number. All warranty claims must be accompanied by a dated receipt as proof of product purchase.

CMP shall under no circumstances be liable for any special, indirect or consequential damages owing to failure of the product. SELLER MAKES NO WARRANTY OF FITNESS OR MERCHANTABILITY AND NO OTHER WARRANTY, ORAL OR WRITTEN, EXPRESS OR IMPLIED, EXCEPT AS SPECIFICALLY SET FORTH HEREIN.

FCC NOTICE

This equipment complies with Part 68 of the FCC rules. On the bottom of the equipment is a label that contains, among other information, the FCC registration number and the ringer equivalence number (REN) for this

equipment. If requested, this information must be provided to the telephone company.

This equipment uses the following USOC jacks: RJ11C

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed 5.0. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance. If advance notice isn't practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact your local dealer or Call Management Products Inc. (CMP) for repair or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request that you remove the equipment from the network until the problem is resolved. Under no condition is any equipment to be sent to CMP without contacting CMP in advance for return authorization.

No repairs can be done by the customer.

This equipment cannot be used on telephone company provided coin service. Connection to Party Line Service is subject to state tariffs.

This equipment is hearing-aid compatible.