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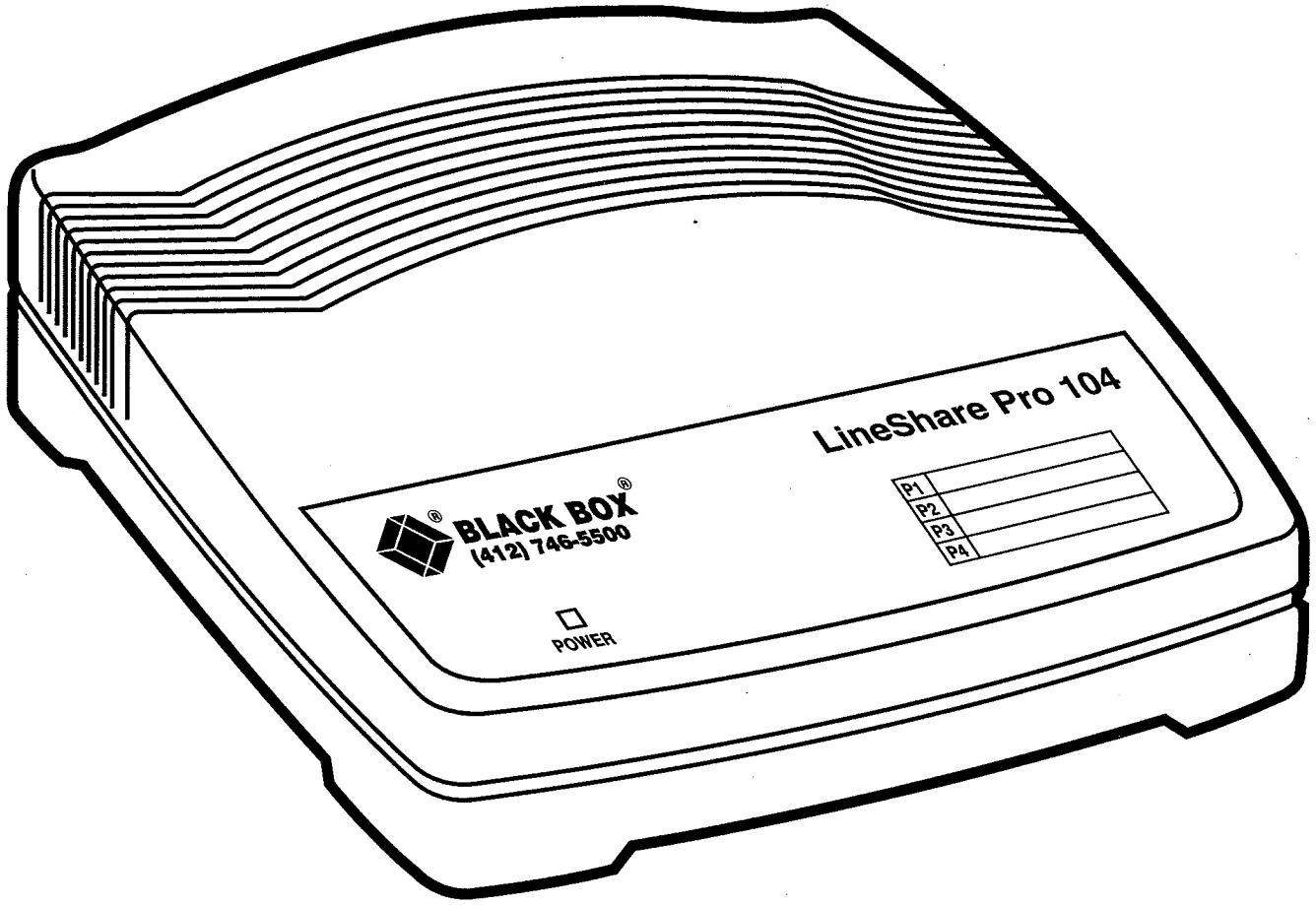
NOVEMBER 1997
FX134A

LineShare Pro 104



CUSTOMER SUPPORT INFORMATION

To order or for technical support: Call **(724) 746-5500** or fax **(800) 321-0746**
Technical support and fax orders 24 hours a day, 7 days a week
Phone orders 24 hours, 8 A.M. Monday to midnight Friday; Saturday 8 to 4 (Eastern)
Mail order: **Black Box Corporation,** 1000 Park Drive, Lawrence, PA 15055

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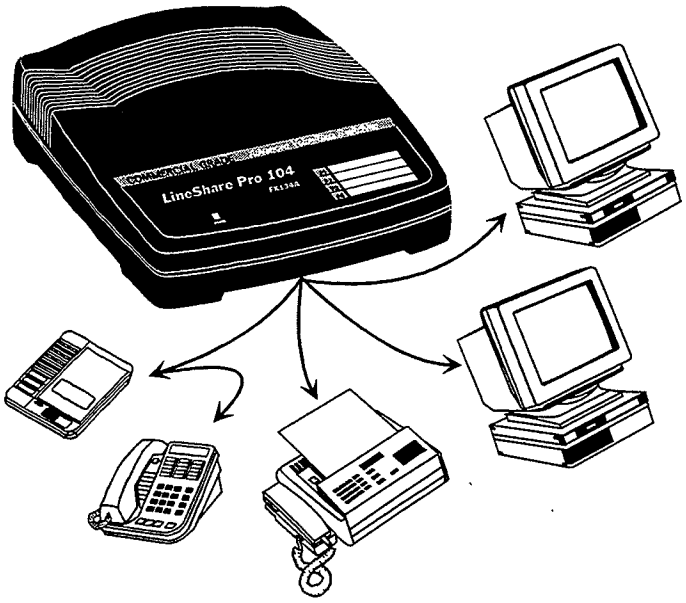
Thank You for purchasing this Black Box product!

Introducing the *LineShare Pro104*



The LineShare Pro 104 is a phone line management system designed to direct incoming phone calls to 1 of 4 destinations. It is capable of transferring calls in virtually any configuration of data devices including, but not limited to the following:

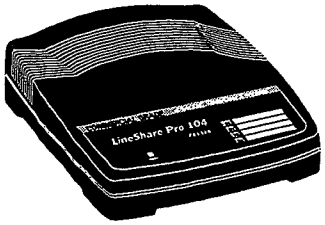
- Credit card authorization terminal
- Security alarm and monitoring system
- Money order dispensing system
- Bulletin Board System (BBS)
- Fax/modem cards
- Telephones (phone systems)
- Answering machine
- Fax machines
- Call diverter
- Laser fax cartridge
- Energy management system
- Flow monitoring system
- Time and attendance system
- Fluid storage system
- Point-of-sale terminal
- Remote diagnostic system

Before you begin

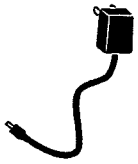
- *Read* through this guide and choose the installation which best fits your needs.
- Unpack and check for the following items.

If any of these items are missing or damaged, contact the dealer where you purchased the unit, or call Customer Service at: **1-412-746-5500.**

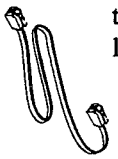
1 LineShare Pro 104



1 AC power adapter



1 modular telephone line cord



Installation Kit

- 1 mounting template
- 1 modular connector
- 1 installer reply card
- 2 mounting screws

A note about telephone company services

If you currently subscribe to or plan to subscribe to any of these services, please note the following:

- **Call Waiting:** Fax machine and modem transmissions may be disrupted by the call waiting signal, unless Call Waiting is disabled. It can be disabled on a single call by pressing * 70 before dialing a phone number.
- **Call Forwarding:** If this service is activated, the LineShare Pro 104 cannot process incoming calls.
- **Phone Company Voice Mail:** Is compatible only when phone company Distinctive Ring service is activated.

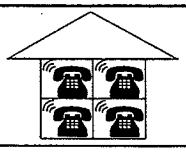
Selecting your set-up

The LineShare Pro 104 is a single line device that can be installed on any type of modular or non-modular system that consists of one or more lines, with one or more phones.

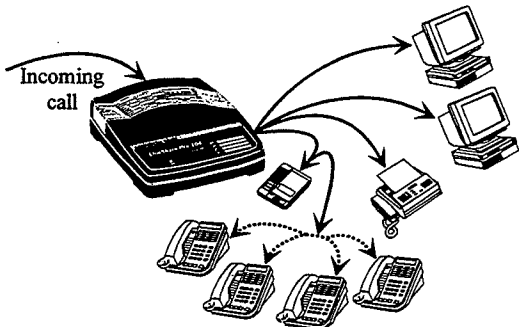
The LineShare Pro 104 has 2 operating modes, Automatic and Semi-Automatic. It can be connected to the phone line in 3 separate configurations as follows:

Standard set-up

Automatic operation
(calls are answered and processed for the entire location)

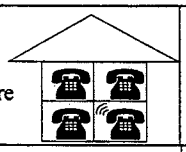


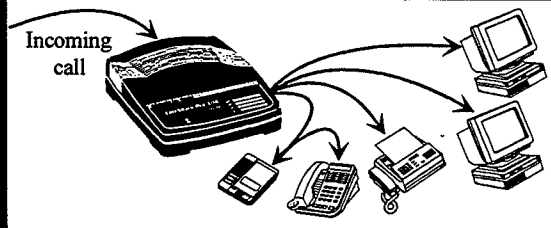
NOTE This application requires installation at the DEMARC. See installing the LineShare Pro 104 for more information.



1. **Answers...** the call automatically.
2. **Transfers...** all calls to the pre-designated telephone device(s) according to the tone(s) received from the calling telephone device. If telephones are connected to the LineShare Pro 104, calls without tones will transfer directly to the telephones.

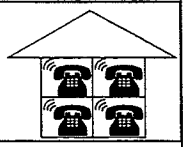
Automatic operation
(calls are answered and processed where the LineShare Pro 104 is located)

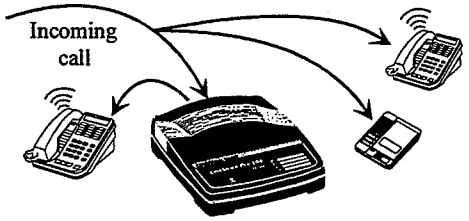




1. **Answers...** the call automatically.
2. **Transfers...** all calls to the pre-designated telephone device(s) according to the tone(s) received from the calling telephone device. If telephones are connected to the LineShare Pro 104, calls without tones will transfer directly to the connected telephones.

Semi-Automatic operation
(all phones in the home ring)



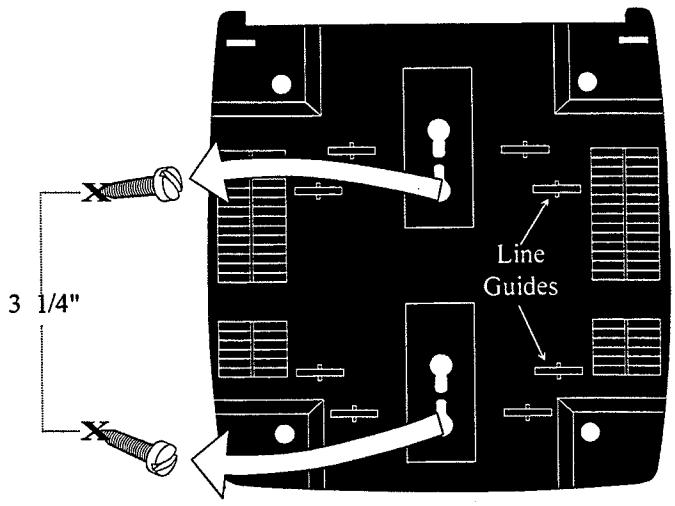


1. **Waits...** for you or your answering machine to answer the call on the Primary port.
2. **Transfers...** fax calls to the fax machine if a fax tone is present, or to computer modems if access codes are used.

Once you select your set-up, proceed with connecting the LineShare Pro 104.
For more information on operating procedures, see "Using the LineShare Pro 104."

Placing the LineShare Pro 104

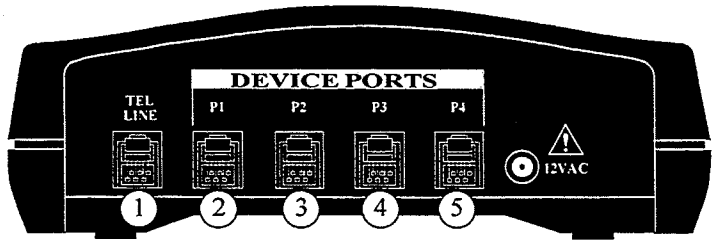
The LineShare Pro 104 can be mounted on a wall with the connected telephone line cords above or below the unit. You can place the telephone line cords through the line guides on the back of the LineShare Pro 104 to reduce tangling.



NOTE Do not place the LineShare Pro104 in close proximity to any peripheral equipment (approximately 2 to 3 feet away from all electronic equipment).

Ports on the LineShare Pro 104

The rear panel of the LineShare Pro 104 includes five (5) modular ports and a power input port, as shown:



A typical installation (voice, fax, computer) would connect telephone equipment as follows:

(1) Connect the provided modular line cord from a standard telephone (wall) jack to this port.

(2) Connect an answering machine or integrated phone/answering machine to this port. The LineShare Pro 104 will transfer all voice calls to port P1.

Depending on the installation, a single line telephone, an integrated phone/answering machine, multiple phones, or a telephone system (KSU or PBX) can be connected to this port.

(3) Connect your fax machine to port P2. A computer modem or fax/modem can connect to this port in lieu of a fax machine.

(4) A computer modem or fax/modem can connect to port P3 to enable the LineShare Pro 104 to transfer a modem call with the appropriate transfer codes.

(5) A computer modem or fax/modem can connect to port P4 to enable the LineShare Pro 104 to transfer a modem call with the appropriate transfer codes.

Connecting the LineShare Pro 104

This section explains how to install the LineShare Pro 104 in most common phone configurations that appear in a home or office.

- a telephone system
- a single telephone line (at the DEMARC)
- a single telephone line (at an existing RJ11 jack)

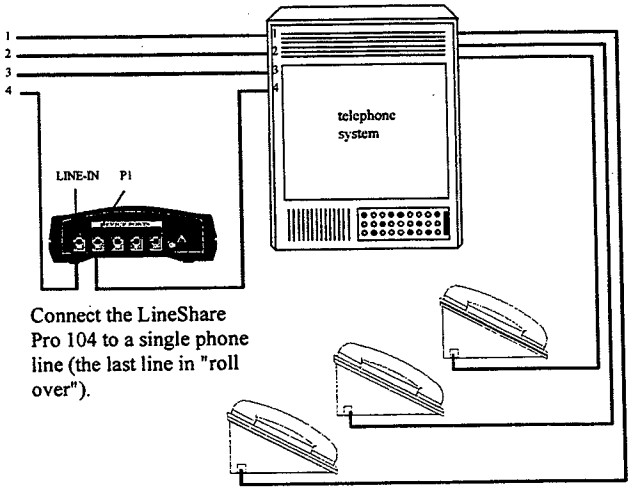
Installation procedures for each of these configurations are provided in the following sections, as well as connecting telephone equipment to the LineShare Pro 104.

Installation on a telephone system

The diagram shows telephone devices connected to the LineShare Pro 104 for a telephone system; follow the same procedures for a mini-telephone system. For the LineShare Pro 104 to operate properly, it must be "in front" of the telephone system. Connect the other equipment as needed.

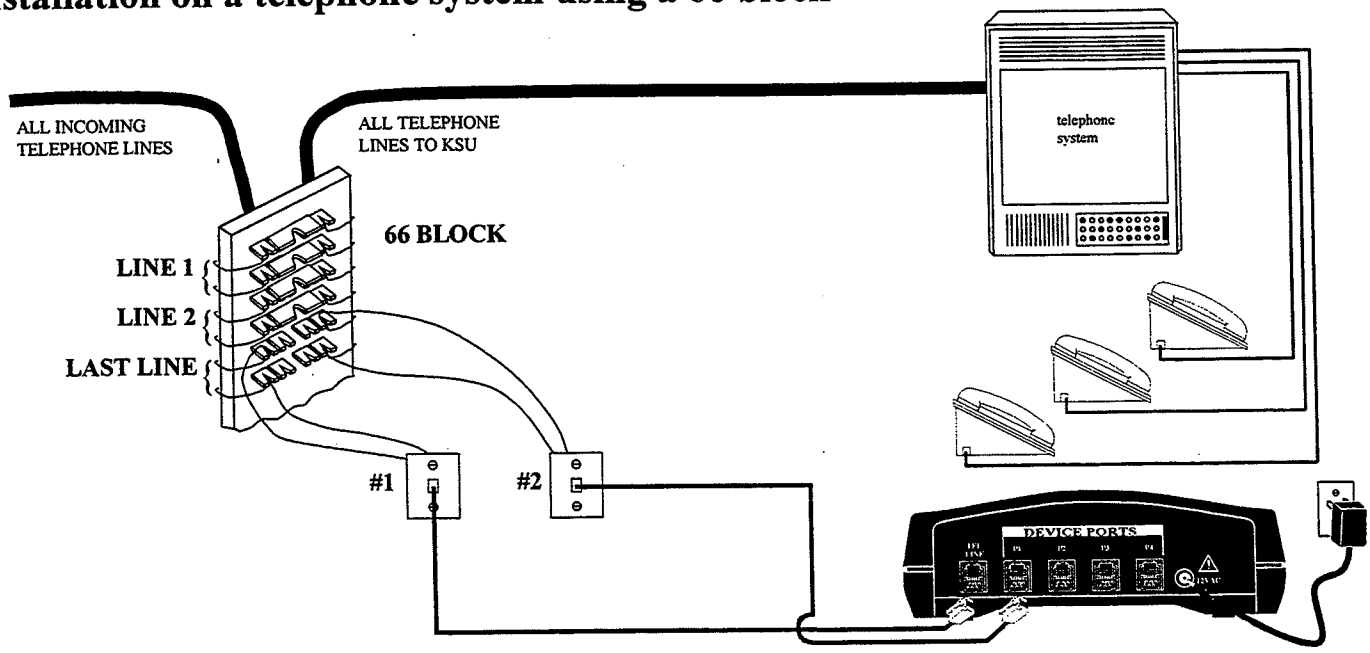
All equipment on that line (telephone system, fax, computer modem, and so on) must connect directly to the LineShare Pro 104.

CAUTION Do not plug the LineShare Pro 104 into a telephone system phone jack. You may damage the phone system or the LineShare Pro 104.



Connect the LineShare Pro 104 to a single phone line (the last line in "roll over").

Installation on a telephone system using a 66 block

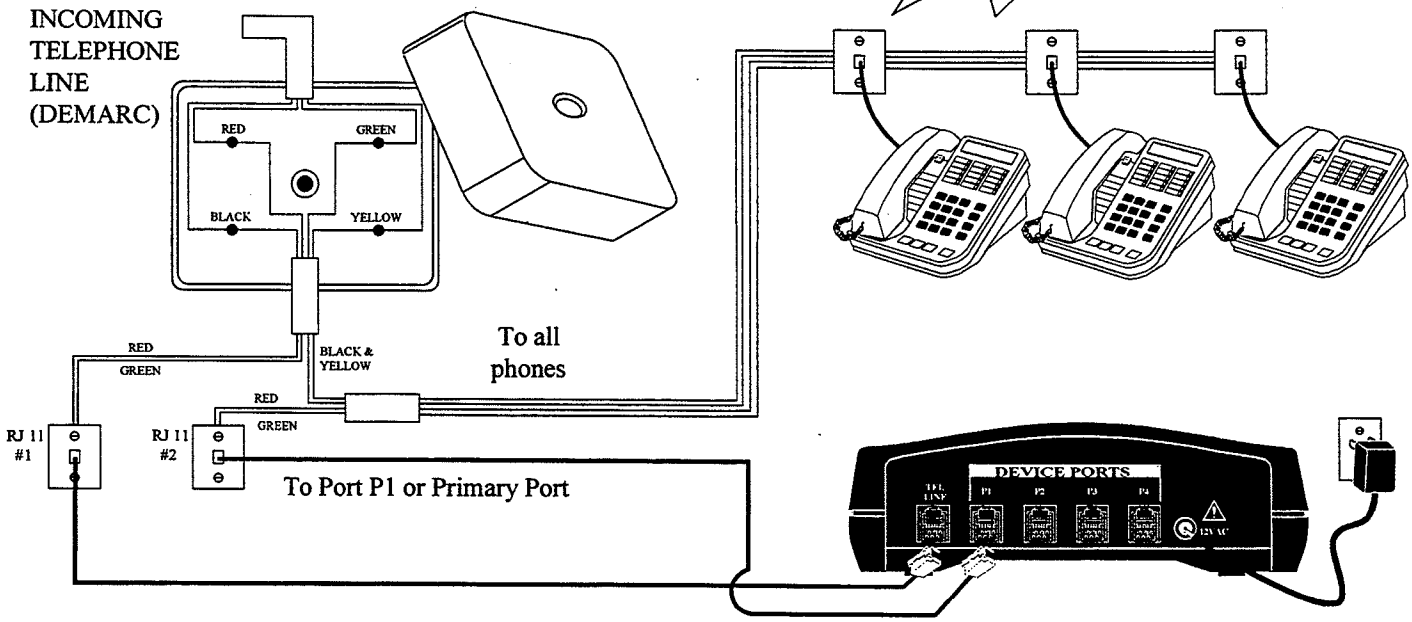


Installation at the DEMARC

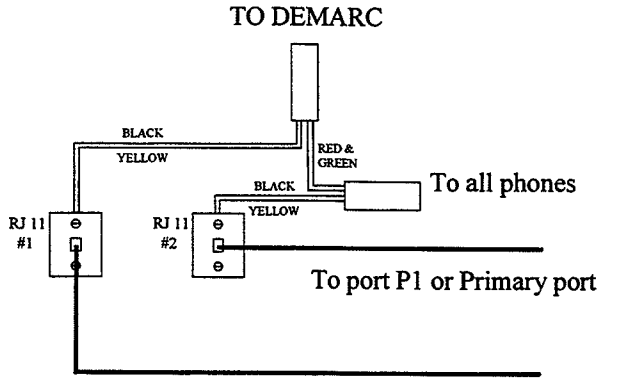
The following diagram shows an installation at the point of DEMARC on line 1. Once connected in this configuration, the telephones will never ring on an inbound call if the LineShare Pro 104 transfers to port P2, port P3 or port P4. Only calls that do not produce transfer tones will ring the telephones.

SINGLE LINE INSTALLATION ON LINE 1

For use in the Automatic mode to allow the LineShare Pro 104 control over all phones on the line.



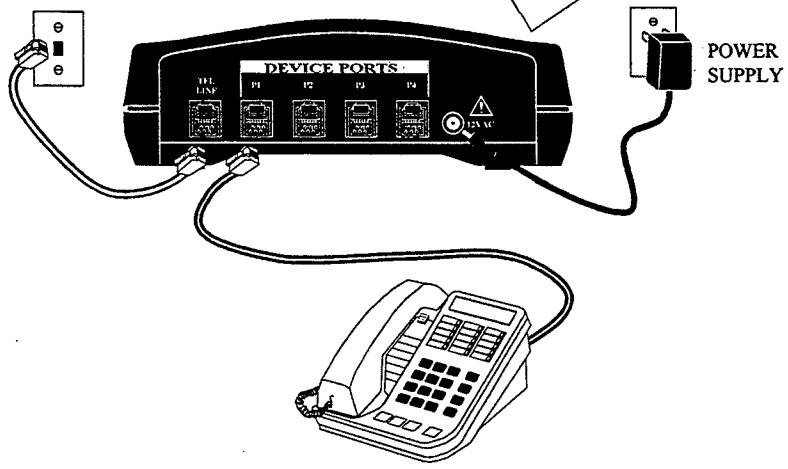
SINGLE LINE INSTALLATION ON LINE 2



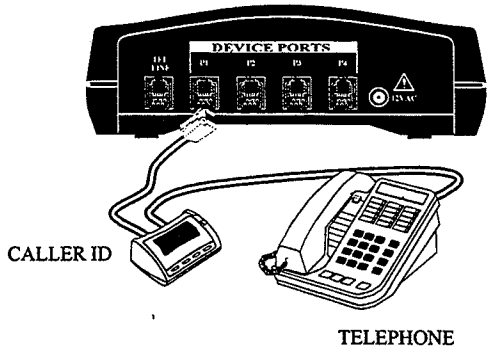
Installation with a single line telephone

The following diagram shows a typical installation with a single line telephone.

This installation is for use in the Semi-Automatic mode, or for the Automatic mode with a phone connected to the Primary port (port P1 default). (Extension phones not connected to the Primary port in the Automatic mode will ring only 1 time on an inbound call. See "Installation at the DEMARC" for an alternate installation.)



NOTE To connect a Caller ID device to the LineShare Pro 104, simply plug the Caller ID into the Primary port (port P1 default), then plug the phone into the Caller ID.



The factory setting for Caller ID operation is OFF. See "Programmable features of the LineShare Pro 104" for more information.

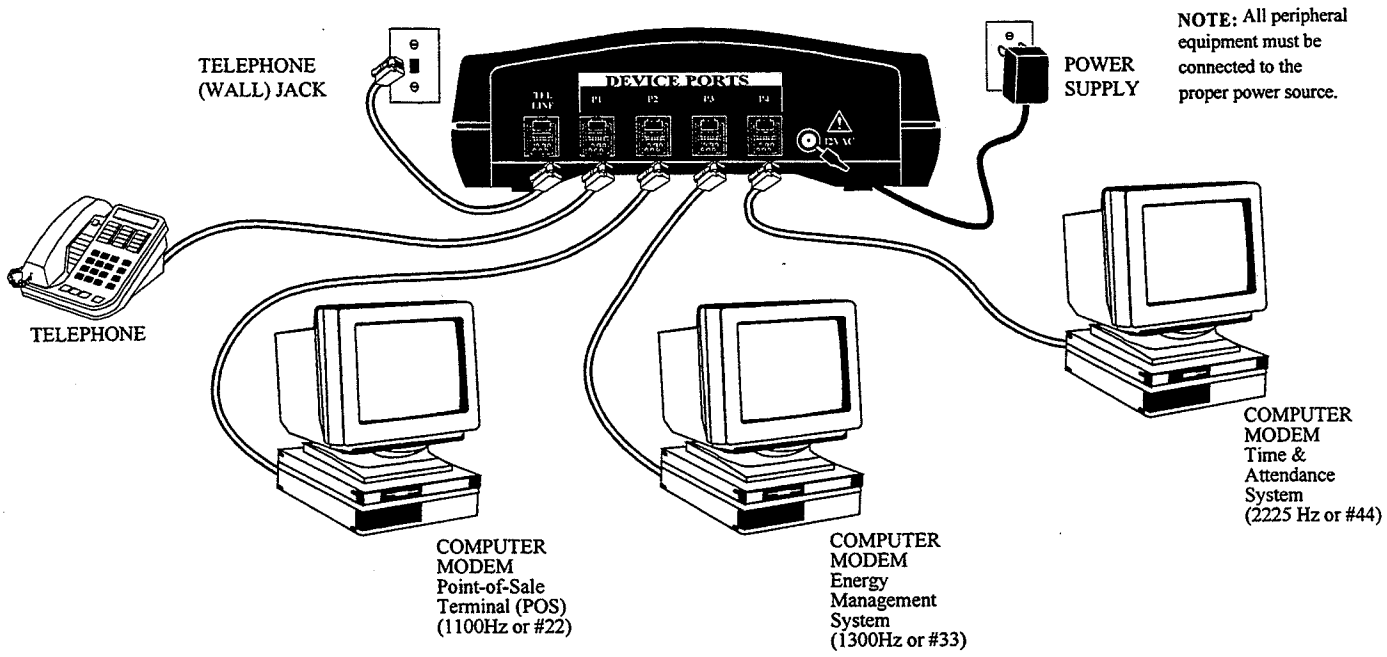
Connecting telephone equipment to the LineShare Pro 104

This section illustrates 2 typical applications using the LineShare Pro 104. The LineShare Pro 104 is capable of routing calls to any data device, system or system of devices which can answer a standard phone company ring signal.

If your application requires additional information or support, call Technical Support at:

1-724-746-5500

Application #1, Typical connection for a retail chain

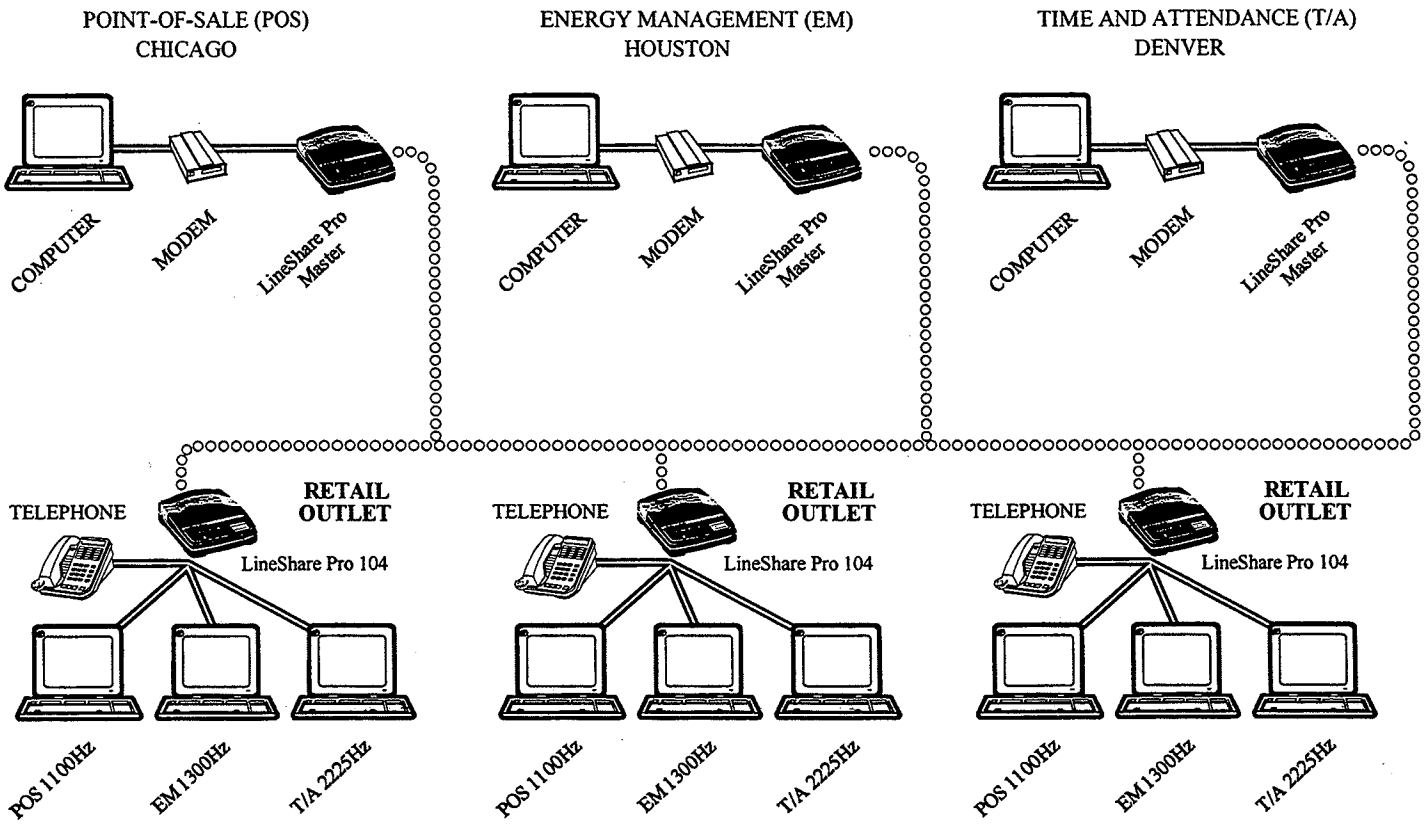


In this application, 3 different computers/systems connect to the LineShare Pro 104, (POS, Energy Management, and Time and Attendance) as well as a telephone.

This allows inbound and outbound telephone calls during normal business hours, and automated polling of the connected data devices after hours. Access to the data devices can be accommodated by access codes in the dialing of the calling computer. For automatic operation without dialing strings, the *LineShare Pro Master produces the single frequency tones required for direct access. The LineShare Pro 104 can also be shut down (on all ports or individually) completely to inbound calls depending on application requirements.

* The LineShare Pro Master is designed to send single frequency call routing tones that the LineShare Pro 104 uses for automatic operation. It is also a commercial product offered by Black Box Corporation.

Below is an on-line application showing how the LineShare Pro 104 and the LineShare Pro Master work together allowing the fastest connect times with the least amount of user intervention.



In this application, 3 different computers in separate locations connect with multiple computers (any number) around the country to access information regarding POS, Energy Management, and Time and Attendance.

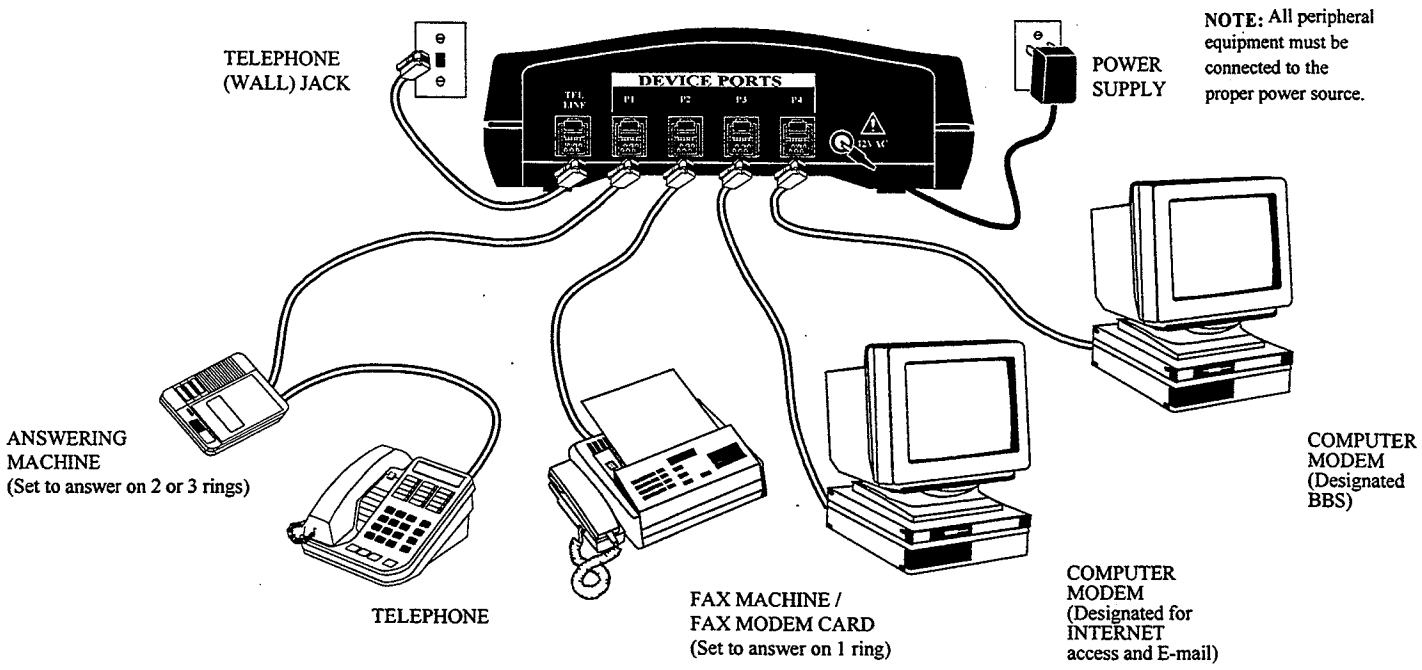
Each LineShare Pro Master shown sends one of 3 different frequency tones to each LineShare Pro 104 location. The tone is recognized by the LineShare Pro 104 and the call is automatically routed to the port on the LineShare Pro 104 that is assigned that frequency and the call connects to the desired device.

In this illustration, literally hundreds of locations equipped with the LineShare Pro 104 can be polled by the LineShare Pro Master for POS, Energy Management, and Time and Attendance data and still maintain normal telephone service -- all on a single telephone line at each location.

Both the LineShare Pro Master and the LineShare Pro 104 are equipped with Emergency Call Override. This means that during any data transmission, anyone lifting a phone off-hook at the LineShare Pro 104 location will automatically get dial tone in approximately 5 seconds. See the section "Emergency Call Override" for more information.

Application #2, Typical connection for a small office/home office

The following diagram shows a typical installation with a single line telephone. This application allows incoming and outgoing voice and fax calls, as well as to separate computer modems. One of the computer modems in this application is used for the INTERNET and E-mail access, while the other is a dedicated Bulletin Board System (BBS).



Calls will be routed to the telephone equipment by the following tones:

port P1 -- silence, or # 1 1
port P2 -- 1100Hz CNG tone or # 2 2
port P3 -- 2225Hz Reverse Modem tone or # 3 3
port P4 -- 1300Hz Modem calling tone or # 4 4

In this application, the LineShare Pro 104 will provide Emergency Call Override to the Primary port (port P1 is default) if the phone company three-way calling service has been activated. See the section "Emergency Call Override" for more information.

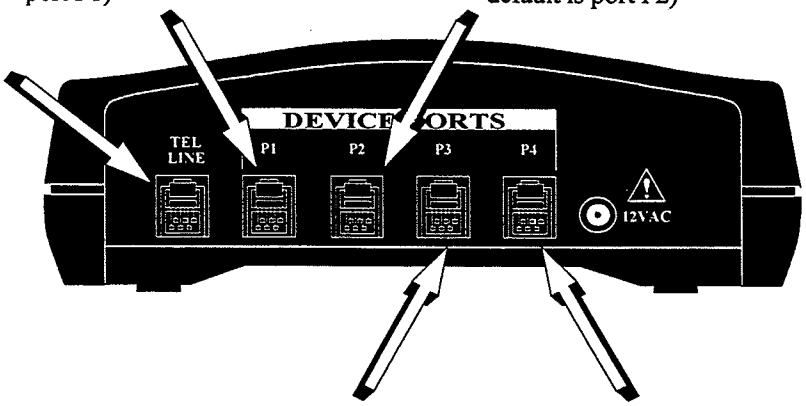
See "Operating modes" for more information about how the LineShare Pro 104 processes calls.

Automatic mode

The LineShare Pro 104 answers incoming calls on the first ring. It then listens for 4 seconds for routing tones or access codes.

The LineShare Pro 104 prohibits incoming calls from direct access to any connected device (unless **Caller ID** is turned ON).

NOTE The routing tones and access codes can be changed through programming.



[#] [1] [1] or silence transfers calls to the **Primary Port Selection** (default is port P1)

[#] [2] [2] or 1100Hz CNG tone transfers calls to port P2. (**Secondary Port Selection** default is port P2)

[#] [3] [3] or 2225Hz reverse modem tone transfers calls to port P3.

[#] [4] [4] or 1300Hz modem tone transfers calls to port P4.

The LineShare Pro 104 will ring the Primary port up to 6 times (**Rings to port P1** in this example) . If the call remains unanswered after 6 rings, the LineShare Pro 104 will transfer (**Automatic No Answer Transfer**) the call to the Secondary port. The **Automatic No Answer Transfer** is designed to accommodate fax machines that do not produce a CNG tone, and can be turned off through programming.

If a device connected to the Primary port answers a call, the LineShare Pro 104 will disable the **Single Tone Detection** feature (if the **Single Tone Detection Timer** has not expired). Then only tone and pulse transfers are allowed as follows.

	Tone	Pulse
port P1	[#] [1] [1]	[3]
port P2	[#] [2] [2]	[4]
port P3	[#] [3] [3]	[5]
port P4	[#] [4] [4]	[6]

In the Automatic mode, pulse transfers are allowed from phones connected directly to the LineShare Pro 104. The device calling into the LineShare Pro 104 cannot pulse transfer to a port.

Any time a call is transferred to another port, the port that is off-hook with the call is the only port that will be allowed to transfer the call. The originating port will receive a busy tone once the transfer occurs.

To accommodate faxes that do not produce CNG tones, the **Automatic Primary Port Transfer** feature can transfer a call to another port (**Secondary Port Selection**) when using an answering machine with the LineShare Pro 104. The factory setting for this feature is OFF, and uses the **Primary Port Transfer Timer** to set parameters for transfer as described later in this guide.

The factory setting for the LineShare Pro 104 is the Automatic mode. To change the operating mode, see "Programmable features of the LineShare Pro 104" for more information.

NOTE In the Automatic mode, any phone(s) not connected to a LineShare Pro 104 port will only ring one time on inbound calls and do not have complete access to the phone line unless **Extension Detection** is turned ON.

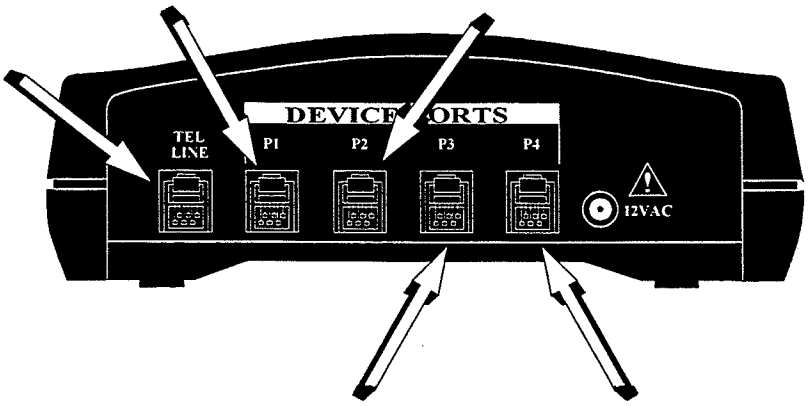
Semi-Automatic mode

The LineShare Pro 104 does not answer calls in this mode. All calls transfer to the **Primary Port Selection** (default is port P1).

When a call is answered by a device on the Primary port, the LineShare Pro 104 listens for all programmed routing tones and access codes.

NOTE The routing tones and access codes can be changed through programming.

The LineShare Pro 104 allows incoming calls to simultaneously ring extension phones and phones connected to the Primary port (default is port P1).



[#] [2] [2] or 1100Hz CNG tone transfers calls to port P2. (**Secondary Port Selection** default is port P2)

[#] [3] [3] or 2225Hz reverse modem tone transfers calls to port P3.

[#] [4] [4] or 1300Hz modem tone transfers calls to port P4.

If the LineShare Pro 104 detects any of these signals, it transfers the call to the appropriate port. (The single frequency tones must be detected within the 10 second **Single Tone Detection Timer.**)

The LineShare Pro 104 will ring the Primary port up to 6 times (**Rings to port P1** in this example). If the call remains unanswered after 6 rings, the LineShare Pro 104 will transfer (**Automatic No Answer Transfer**) the call to the Secondary port. The **Automatic No Answer Transfer** is designed to accommodate fax machines that do not produce a CNG tone, and can be turned off through programming.

If a device connected to port P2, P3 or P4 answers a call, only tone and pulse transfers are allowed as follows.

	Tone	Pulse
port P1	[#] [1] [1]	[3]
port P2	[#] [2] [2]	[4]
port P3	[#] [3] [3]	[5]
port P4	[#] [4] [4]	[6]

In the Semi-Automatic mode, pulse transfers are allowed from any phone connected to the line using the LineShare Pro 104. The device calling into the LineShare Pro 104 cannot pulse transfer to a port.

Any time a call is transferred to another port, the port that is off-hook with the call is the only port that will be allowed to transfer the call. The originating port will receive a busy tone after the transfer occurs.

To accommodate faxes that do not produce CNG tones, the **Automatic Primary Port Transfer** feature can transfer a call to port P2, P3 or P4 when using an answering machine. The factory setting for this feature is OFF, and uses the **Primary Port Transfer Timer** to set parameters for transfer as described later in this guide.

The factory setting for the LineShare Pro 104 is the Automatic mode. To change the operating mode, see "Programmable features of the LineShare Pro 104" for more information.

Distinctive Ring service

The phone company's Distinctive Ring service (DRS) is offered in most areas across the U.S. Phone companies offer this service under various names, check with your local phone company for details (service activation required).

When a second, third or fourth phone number is added to a single line, the LineShare Pro 104 works smoothly to process calls without depending on access codes or transfer tones.

The factory default for **Distinctive Ring detection** is OFF. When turned ON, the LineShare Pro 104 will process the additional phone numbers (ring styles) as follows:

port P1 ----- standard ring
port P2 ----- two-burst ring
port P3 ----- three-burst ring (short-short-long)
(short-short-short)
(long-long-long)
(long-short-short)
(short-long-long)
port P4 ----- three-burst ring (short-long-short)
(long-short-long)
(long-long-short)

NOTE If a ring burst is not assigned to a port, the LineShare Pro 104 will not answer a call ringing with that specific cadence.

(These settings are the default settings for transferring calls, and can be changed to meet end-user needs.)
When Distinctive Ring is turned ON, the following features are deactivated:

Automatic Primary Port Transfer **Automatic No Answer Transfer** **Automatic Ring Reduction**

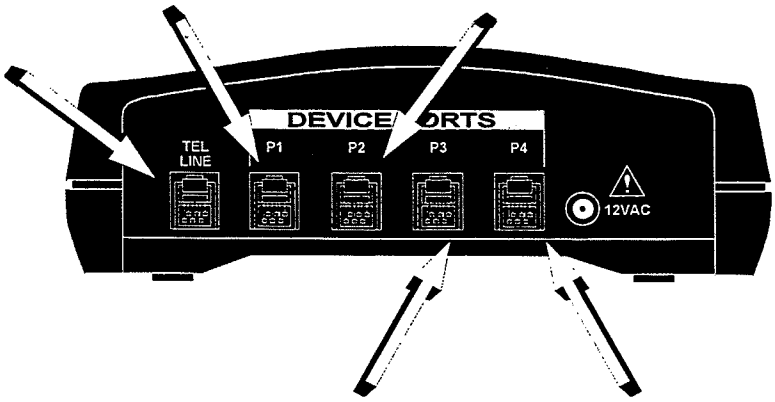
When **Distinctive Ring** is turned ON, the LineShare Pro 104 will process calls in the current operating mode. Calls will be processed differently in the Automatic mode and Semi-Automatic mode as follows:

Automatic mode (DRS Activated)

The LineShare Pro 104 answers incoming calls on the first ring. It then listens for 4 seconds for routing tones or access codes.

The LineShare Pro 104 prohibits incoming calls from direct access to any connected device (unless **Caller ID** is turned ON).

NOTE The routing tones and access codes can be changed through programming.



[#] [1] [1] or a standard ring, transfers calls to port P1

[#] [2] [2], 1100Hz CNG tone or a two-burst ring transfers calls to port P2.

[#] [3] [3], 2225Hz reverse modem tone or a three-burst ring (see above) transfers calls to port P3.

[#] [4] [4], 1300Hz modem tone or a three-burst ring (see above) transfers calls to port P4.

If the LineShare Pro 104 detects any of these signals, it transfers the call to the appropriate port.

If the LineShare Pro 104 does not detect any of these signals, it will transfer the call to the port designated in the **DRS Assignment.**

The LineShare Pro 104 will answer the call on the first ring **(Rings to Answer Call)** unless the **DRS Assignment** is not set for that line. (This means the LineShare Pro 104 will only process distinctive rings which have been programmed and ignore all other ring styles.)

If a device connected to another port on the LineShare Pro 104 answers a call, the LineShare Pro 104 will disable the **Single Tone Detection** feature (if the associated timer has not expired). Then, only tone and pulse transfers are allowed as follows.

	Tone	Pulse		Tone	Pulse
port P1	# 1 1	3	port P3	# 3 3	5
port P2	# 2 2	4	port P4	# 4 4	6

In the Automatic mode, pulse transfers are allowed from phones connected directly to the LineShare Pro 104. The device calling into the LineShare Pro 104 cannot pulse transfer to a port.

Any time a call is transferred to another port, the port that is off-hook with the call is the only port that will be allowed to transfer the call. The originating port will receive a busy tone once the transfer occurs.

NOTE Extension phones not connected to the LineShare Pro 104 will only ring one time (**Rings to Answer Call**) on inbound calls and cannot answer calls unless **Extension Detection** is turned ON.

Semi-Automatic mode (DRS activated)

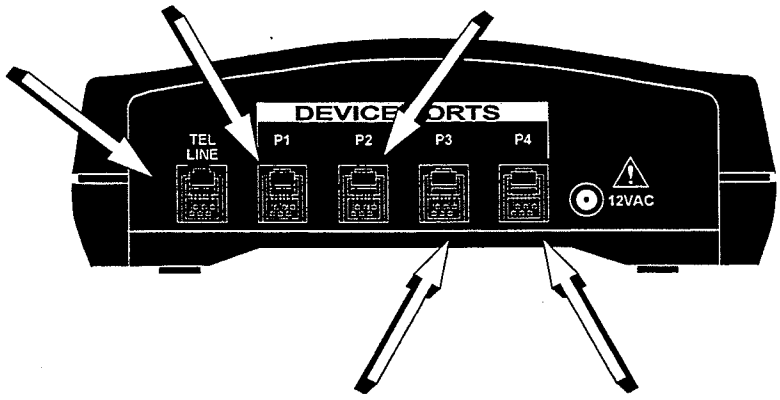
This mode allows the first ring of an incoming call to simultaneously ring extension phones and the LineShare Pro 104. The second ring will be transferred to the port as designated in the **DRS Assignment**. Extension phones will continue to ring until a device answers.

The LineShare Pro 104 prohibits incoming calls from direct access to any connected device (unless **Caller ID** is turned ON).

NOTE The routing tones and access codes can be changed through programming.

a standard ring, transfers calls to port P1

a two-burst ring transfers calls to port P2



a three-burst ring (see page 13) transfers calls to port P3

a three-burst ring (see page 13) transfers calls to port P4

If a device connected to any port answers a call, the LineShare Pro 104 listens for the following signals:

	Tone	Pulse	Single Tone
port P1	# 1 1	3	
port P2	# 2 2	4	1100Hz CNG tone
port P3	# 3 3	5	2225 Hz reverse modem tone
port P4	# 4 4	6	1300 Hz modem tone

If a device connected to any port answers a call, the **Single Tone Detection** feature activates. When the **Single Tone Transfer Timer** expires (10 seconds), only tone and pulse transfers are allowed.

If the LineShare Pro 104 detects any of the above signals, it transfers the call to the appropriate port. Otherwise, it remains on line until it receives transfer codes, or the call disconnects.

NOTE You can pulse transfer from any phone connected to the line. A device calling the LineShare Pro 104 cannot pulse transfer to a port on the LineShare Pro 104.

Any time a call is transferred to another port, the port that is off-hook with the call is the only port that will be allowed to transfer the call. The originating port will receive a busy tone once the transfer occurs.

Special operating note

Before operating the LineShare Pro 104, be sure that you understand the following information concerning the telephone equipment that is used with the LineShare Pro 104.

Fax CNG tones: Most faxes send audible beep tones called CNG (CalliNG) tones. This tone is a distinct beep that repeats every three (3) seconds. Once a fax has dialed the destination fax number, it generates this tone while waiting for the receiving fax to answer.

Not all faxes transmit this tone when they place a call. Most, but not all faxes produce this tone through their auto-dial feature, speed-dial memory position, or by the operator pressing the fax machine's *start* button after the number is dialed.

For best results, callers should have your fax number programmed into their fax machine's "speed-dial" memory.

Receiving a computer call

Unlike a fax call, most inbound computer calls do not produce identifying tones; they remain silent until another modem answers the call.

To receive a computer call to a port on the LineShare Pro 104, instruct the caller to use one of the following methods. (In this example we use a modem.)

Computer calls using access codes in dialing strings

To have the calling modem automatically "over dial" an access code to a modem connected to the LineShare Pro 104, the caller must take into consideration whether the call is local or long distance.

For remote access to port P3 on the LineShare Pro 104, instruct the caller to use the following dialing string in the modem's software:

ATDT (phone number),#33,#33,#33,#33
(for Automatic mode)

ATDT (phone number),,,,#33,#33,#33,#33
(for Semi-Automatic mode)

The calling modem picks up its phone line and dials the phone number. The comma (,) tells the modem to wait about two (2) seconds and then repeatedly "over dial" the access code.

NOTE Not all modem comma (,) commands delay dialing for a 2 second interval. See your modem Operator's Guide and adjust the number of commas you use accordingly.

In the Automatic mode, the LineShare Pro 104 will answer a call, detect the tones and transfer the call to port P3.

In the Semi-Automatic mode, you or your answering machine will answer the call, then the LineShare Pro 104 will detect the tones and transfer the call to port P3.

For long distance remote access to port P3, instruct the caller to use the following dialing string in the modem's software:

ATDT 1 (phone number),,,,#33,#33,#33,#33
(for Automatic mode)

ATDT 1 (phone number),,,,,,#33,#33,#33,#33
(for Semi-Automatic mode)

NOTE In the Semi-Automatic mode, the commas entered before the #33 are set to your answering machine's 2 ring answer. Use 3 additional commas for each ring that your answering machine is set to answer above 2 rings.

For calls requiring access to other ports, substitute the appropriate access codes:

#11 for port P1

#22 for port P2

#44 for port P4

Computer calls using the phone company DRS

As previously described, the LineShare Pro 104 is capable of routing calls based upon the phone company's Distinctive Ring service. Each telephone device is designated to a specific port and ring signal on the LineShare Pro 104.

Callers simply dial the specific phone numbers assigned to the desired device and the LineShare Pro 104 transfers the call as described in the section **Distinctive Ring service**.

Computer calls using the LineShare Pro Master

As previously described, the LineShare Pro 104 is capable of routing calls based upon the single frequency tones produced by the LineShare Pro Master. Each telephone device is assigned to a specific port and single frequency tone on the LineShare Pro 104.

Once the LineShare Pro Master is set up at the remote location, callers simply dial the phone number and the LineShare Pro Master begins transmitting the selected tone. The LineShare Pro 104 receives and transfers the call as described in the section **Operating modes**.

NOTE The LineShare Pro Master is designed to send single frequency call routing tones that the LineShare Pro 104 uses for automatic operation. It is also a commercial product offered by Black Box Corporation (see page 9 for an on-line application).

ComScan®Scanning / Intercom

The LineShare Pro 104 converts your fax machine into a full page, multi-document scanning system by using the built-in **ComScan** feature.

Example: To scan a document through the LineShare Pro 104, connect a fax/modem or fax/modem card to port P4, and a fax machine to port P2. Once your equipment is connected properly, perform the following steps:

1. Set the fax/modem in "receive fax" on a 1 or 2 ring answer.
2. Insert the document to be scanned into the fax machine and take the fax machine's phone receiver off-hook and press [*] [*] [4] [4]
3. When your fax/modem answers, press the fax machine's start button and return the phone receiver to its cradle.

After you complete these steps, your fax/modem will receive the document and store it as any received fax. You can then retrieve the document using your fax/modem's software to make changes or store it electronically. (There are many software packages on the market that allow you to modify a fax received by a fax/modem, see your local computer software dealer.)

Simply reverse the process to send a print job to your fax machine from your computer [*] [*] [2] [2]

If the LineShare Pro 104 is installed with phones connected to all ports, this feature also allows an intercom path between ports. To make an internal call to another port, perform the following steps:

1. Take a phone connected to the LineShare Pro 104 off-hook.
2. Press one of the following transfer codes from a tone phone:
   - [*] [*] [1] [1] for port P1
   - [*] [*] [2] [2] for port P2
   - [*] [*] [3] [3] for port P3
   - [*] [*] [4] [4] for port P4
3. Replace the phone receiver on-hook when finished.

Answering incoming calls

You can answer incoming calls from an extension phone (if **Extension Detection** is turned ON) or from a phone device connected to the Primary port. You can then conduct the call normally, for as long as you like.

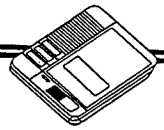
① If you hear silence on the line after answering a call, the call is likely coming from a fax that does not produce a CNG tone. Simply transfer the call to the port that the fax is connected to by pressing one of the following:

	Tone	Pulse
port P1	# 1 1	3
port P2	# 2 2	4
port P3	# 3 3	5
port P4	# 4 4	6

② In the Semi-Automatic mode, if you hear a single frequency tone or an access code for another port after answering a call, hang up the phone. The call will transfer automatically.

NOTE If the LineShare Pro 104 is in the Automatic mode, you cannot perform rotary/pulse dialing transfers from extension phones not connected to the LineShare Pro 104.

Answering calls with an answering machine



If the answering machine answers a call from the Primary port, the caller can perform the following:

- record a voice message on the answering machine and/or
- transfer their call to another port

Following is a sample announcement message that you may wish to use:

*" * Hello, this is _____. If you wish to send a fax, press # 2 2 on your tone phone, or leave a message at the tone."*

NOTE Use the appropriate access code if the fax is not connected to port P2. Also, callers cannot transfer a call to another port from a pulse dialing fax.

* If the LineShare Pro 104 is in the Semi-Automatic mode, you should record 4 seconds of silence before recording your outgoing message.

NOTE Fax calls that do not produce a CNG tone will transfer to the answering machine. To allow the LineShare Pro 104 to transfer these calls to the Secondary port, see "Programmable features of the LineShare Pro 104" to turn the **Automatic Primary Port Transfer** feature ON.

With the **Automatic Primary Port Transfer** turned ON, the LineShare Pro 104 will monitor the line for 30 seconds after the answering machine answers a call. If the answering machine (or telephone) disconnects from the call during this time, the LineShare Pro 104 automatically transfers the call to the Secondary port. To accommodate these timing parameters, the outgoing message should be between 15 and 20 seconds in length. (Single cassette answering machines are not recommended for use with this feature due to timing limitations of these types of machines.)

Retrieving answering machine messages from a remote location

To disable the LineShare Pro 104 and retrieve answering machine messages, follow these steps:

① Dial your phone number and wait for the answering machine to answer the call.

② After the answering machine answers the call, press * from a tone phone. (This disables the LineShare Pro 104 from inadvertantly transferring a call.)

③ Follow the remote retrieval procedures for your answering machine.

④ After retrieving your messages, hang up. The LineShare Pro 104 resets for the next call.

Placing an outbound call

Outbound calls can be placed from any port. If another port is in use, the LineShare Pro 104 will produce a busy signal when attempting to place a call.

During an outbound call, you can also receive a transmission from someone that is ready to transmit.

To transfer this call to a port any time during a conversation, press the following from a tone phone, or from a rotary/ pulse dialing phone:

	Tone	Pulse
port P1	# 1 1	3
port P2	# 2 2	4
port P3	# 3 3	5
port P4	# 4 4	6

(Picking up an extension phone not connected to a port during a data or fax transmission may interrupt the call.)

Emergency Call Override

This feature allows the Primary port to interrupt a call in process on another port. **Emergency Call Override** operates in conjunction with 3-way calling service from the phone company or the LineShare Pro Master. Operation of this feature is provided through the Primary port, and can be set up for *automatic* or *manual* operation. The **Emergency Call Override Selection** operates with **Emergency Call Override** as explained below.

Automatic operation with 3-way calling:

When a call is in process on a port and a telephone connected to the Primary port goes off-hook, the LineShare Pro 104 will disconnect the active port from the phone line, transmit a tone for 3 seconds, and then hook-flash to obtain dial tone from the phone company.

Manual operation with 3-way calling:

When a call is in process on a port and a telephone connected to the Primary port goes off-hook, the # key must be pressed and released to activate the **Emergency Call Override**. Upon detection of the # key, the LineShare Pro 104 will disconnect the active port from the phone line, transmit a tone for 3 seconds, and then hook-flash to obtain dial tone from the phone company.

Automatic operation with the LineShare Pro Master:

When a call is in process on a port and a telephone connected to the Primary port goes off-hook, the LineShare Pro 104 will disconnect the active port from the phone line, transmit a tone for 3 seconds, go on-hook for 2 seconds, and then obtain dial tone from the phone company. (The LineShare Pro Master detects the tone sent from the LineShare Pro 104 and hangs up.)

Manual operation with the LineShare Pro Master:

When a call is in process on a port and a telephone connected to the Primary port goes off-hook, the # key must be pressed and released to activate the **Emergency Call Override**. Upon detection of the # key, the LineShare Pro 104 will disconnect the active port from the phone line, transmit a tone for 3 seconds, go on-hook for 2 seconds, and then obtain dial tone from the phone company. (The LineShare Pro Master detects the tone sent from the LineShare Pro 104 and hangs up.)

NOTE

The LineShare Pro 104 must be programmed for operation with either the LineShare Pro Master or the phone company's 3-way calling, as well as Automatic or Manual operation. See **Programmable features** and **feature settings of the LineShare Pro 104.**

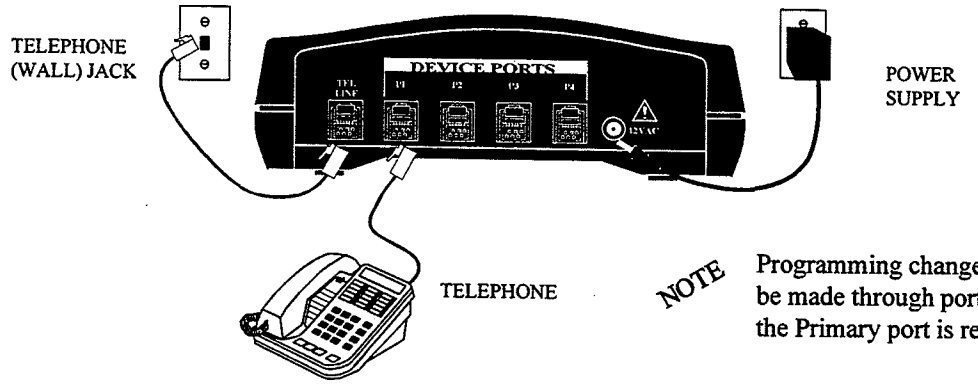
Introduction

The LineShare Pro 104 has many features which can be used to customize its operation.

Many of these features have either feature settings or timing parameters associated directly with their operation. Therefore, read the following sections carefully to obtain the best results when programming.

Entering and programming locally

Connect the LineShare Pro 104 as shown, using a tone phone (rotary/pulse dialing phones cannot program the LineShare Pro 104).



NOTE Programming changes can only be made through port P1 even if the Primary port is reassigned.

Programming changes can be performed from a tone phone connected to port P1 of an operational unit.

To enter the programming mode, take the phone off-hook, press # *

Once in programming, the LineShare Pro 104 allows 8 seconds between tone commands before exiting the programming mode without saving the changes. Therefore, it would be beneficial to write down all programming changes before entering the programming mode.

Once a complete tone command is entered, it must be followed by the * key, which stores it into memory. After you enter the * key, you can set as many features or feature settings as needed for your application. When all programming changes are complete, press * * to make changes permanent and exit programming.

The LineShare Pro 104 will not be able to process calls during programming sessions.

If you hear dial tone during a programming session, the intercept operator message, or if programming was not successful, perform the following steps:

1. Disconnect the telephone line from the TEL LINE port.
2. Take the phone in port P1 off-hook.
3. Disconnect power from the LineShare Pro 104.
4. Reconnect power to the LineShare Pro 104.
5. The LineShare Pro 104 will produce three beeps indicating entry into the programming mode.
6. Continue with programming changes as previously described.
7. When programming changes are complete, hang up the phone.
8. Reconnect the telephone line.

Entering and programming remotely

To program the LineShare Pro 104 remotely, the **Security Access Code** must be stored into memory.

From the remote location, dial the phone number of the line connected to the LineShare Pro 104. The call must be placed from a tone phone that has the # and * keys. When the LineShare Pro 104 answers the call, enter the # key between ring signals and then the **Security Access Code**. The LineShare Pro 104 will beep 3 times indicating successful entry into the programming mode.

Continue with programming changes as previously described.

	FEATURES	DEFAULT SETTING	OPTIONS OFF	OPTIONS ON
0	Automatic No Answer Transfer	ON	0 0	1 0
1	Automatic Primary Port Transfer	OFF	0 1	1 1
2	Automatic Ring Reduction	OFF	0 2	1 2
3	Automatic Ring Reduction Reset	ON	0 3	1 3
4	Extension Detection	OFF	0 4	1 4
5	On-Line Extension Protection	ON	0 5	1 5
6	Answer Any Port	OFF	0 6	1 6
7	Pulse Dial Transfer	ON	0 7	1 7
8	Pound Key Required	ON	0 8	1 8
9	Single Tone Detection	ON	0 9	1 9
1 0	Fax CNG (Calling) Tone Detection	ON	0 1 0	1 1 0
1 1	Modem (Calling) Tone Detection	OFF	0 1 1	1 1 1
1 2	Reverse Modem Tone Detection	ON	0 1 2	1 1 2
1 3	Distinctive Ring Service Detection	OFF	0 1 3	1 1 3
1 4	Caller ID	OFF	0 1 4	1 1 4
1 5	Emergency Call Override Selection	OFF	0 1 5 (Operates with 3-way calling)	1 1 5 (Operates with LineShare Pro Master)

Programmable feature settings of the LineShare Pro 104

	FEATURE	DEFAULT SETTING	OPTIONS
2	Operating Mode	20	20 Automatic mode 21 Semi-Automatic mode
30	Port Tone Assignment	0124	0 to 7 for each port
31	Emergency Call Override (operating mode)	310 OFF	311 Manual 312 Automatic
40	Rings to Answer Call	1	1 to 99
41	Rings to Port P1	6	1 to 99
42	Rings to Port P2	6	1 to 99
43	Rings to Port P3	6	1 to 99
44	Rings to Port P4	6	1 to 99
50	Primary Port Transfer Timer	30	0 to 99 seconds
51	Ring Reduction Reset Timer	10	1 to 60 minutes
52	Single Tone Detection Timer	10	4 to 30 seconds
60	Remote Security Access Code	NONE	0 to 9999
61	Port P1 Transfer Code	11	0 to 9999
62	Port P2 Transfer Code	22	0 to 9999
63	Port P3 Transfer Code	33	0 to 9999
64	Port P4 Transfer Code	44	0 to 9999
71	Primary Port Selection	711 P1	P1: 711 P2: 712 P3: 713 P4: 714
72	Secondary Port Selection	722 P2	P1: 721 P2: 722 P3: 723 P4: 724
80	DRS Assignment	1234	0 to 4 for each port
81	Phantom Ring Style	1	0 to 4
999	Reset to Factory Settings	999	999

Automatic No Answer Transfer

Operates in either the Automatic or Semi-Automatic mode.

This feature is designed to transfer calls that do not produce identifying tones to the appropriate port.

The LineShare Pro 104 will ring the Primary port 6 times (**Rings to Port P_**). If the call remains unanswered after 6 rings, the call will be transferred to the Secondary port.

If the **Automatic No Answer Transfer** feature is turned OFF, the LineShare Pro 104 will operate as follows:

Semi-Automatic mode

The call will continue to ring as long as the caller stays on line without transferring.

Automatic mode

The call will ring 6 times to the Primary port without transferring, then reset for the next call. The next incoming call will be processed with **Ring Reduction** activated as well as associated features and feature settings.

The factory setting for **Automatic No Answer Transfer** feature is ON.

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 0 * (three beeps) *
3. Hang up the phone

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 0 * (three beeps) *
3. Hang up the phone

Automatic Primary Port Transfer

Operates in either the Automatic or Semi-Automatic mode.

This feature is designed to work in conjunction with an answering machine to transfer calls that do not produce identifying tones to the appropriate port.

If the answering machine answers a call and is on line for less than 30 seconds (**Primary Port Transfer Timer**) the LineShare Pro 104 will transfer the call to the Secondary port. If the call is on line for more than 30 seconds, the LineShare Pro 104 will simply reset for the next call when the answering machine disconnects.

If the **Automatic Primary Port Transfer** feature is turned OFF, the LineShare Pro 104 will reset each time the answering machine disconnects from a call. No transfer to the Secondary port will occur when the answering machine disconnects from a call.

The factory setting for **Automatic Primary Port Transfer** feature is OFF.

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 1 * (three beeps) *
3. Hang up the phone

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 1 * (three beeps) *
3. Hang up the phone

Automatic Ring Reduction

Operates in either the Automatic or Semi-Automatic mode.

This feature is designed to activate when **Automatic No Answer Transfer** sends an unanswered call to the Secondary port. After this transfer occurs, the **Automatic Ring Reduction** is activated and allows only 2 rings to the Primary port for future calls.

The LineShare Pro 104 will reset the ring count to 6 rings (**Ring Reduction Reset**) after 10 minutes (**Ring Reduction Reset Timer**) of inactivity on other ports. Otherwise, it can be reset manually from any port by making a call.

If **Automatic Ring Reduction** is turned OFF, the LineShare Pro 104 will continue to allow 6 rings (**Rings Available to Port P _**) to the Primary port on every call. (Turning this feature OFF may limit some fax machine's ability to connect to your fax machine due to timing parameters.)

The factory setting for Automatic Ring Reduction is OFF.

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 2 * (three beeps) *
3. Hang up the phone

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 2 * (three beeps) *
3. Hang up the phone

Automatic Ring Reduction Reset

Operates in either the Automatic or Semi-Automatic mode.

This feature is designed to reset the LineShare Pro 104 to allow 6 rings (**Rings to Port P _**) to the Primary port after the **Automatic Ring Reduction** reduced the ring count to 2 rings.

The **Automatic Ring Reduction Reset** will reset the ring count to 6 rings after 10 minutes (**Ring Reduction Reset Timer**) of inactivity. Otherwise, it can be reset manually from any port by making a call.

If **Automatic Ring Reduction Reset** is turned OFF, the LineShare Pro 104 will continue to allow 2 rings to the Primary port on every call until it is manually reset.

The factory setting for **Automatic Ring Reduction Reset** is ON, but will not operate until **Automatic Ring Reduction** is turned ON.

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 3 * (three beeps) *
3. Hang up the phone

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 3 * (three beeps) *
3. Hang up the phone

Extension Detection

Extension Detection provides a method to interrupt call processing from an extension phone and operates only in the Automatic mode.

With **Extension Detection** turned OFF, the LineShare Pro 104 does not detect extension phones (phones not connected to the LineShare Pro 104) going off-hook during a call. When answering a call from an extension phone, you will hear the LineShare Pro 104 ringing the selected port. Pressing the * key on an extension phone stops the LineShare Pro 104 from ringing the port and gives control of the call to the extension phone.

If **Extension Detection** is turned ON, the LineShare Pro 104 will detect an extension phone going off-hook and stop ringing the port. The extension phone now has control of the call.

The factory setting for **Extension Detection** is OFF.

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 4 * (three beeps) *
3. Hang up the phone

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 4 * (three beeps) *
3. Hang up the phone

On-Line Extension Protection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to detect when an extension phone (not connected to the LineShare Pro 104) goes off-hook to place a call. Once the extension phone is on-line, any device connected to the LineShare Pro 104 cannot access the phone line. The device simply receives a busy signal until the extension phone has disconnected from the call.

NOTE Phones or data devices connected directly to the LineShare Pro 104 do not require this feature as the LineShare Pro 104 maintains exclusion between ports.

If **On-Line Extension Protection** is turned OFF, a call from any extension phone can be interrupted by a device connected to another port of the LineShare Pro 104.

The factory setting for **On-Line Extension Protection** is ON.

To turn this feature OFF.

1. Take the phone in port P1 off-hook
2. Press # * 0 5 * (three beeps) *
3. Hang up the phone

To turn this feature ON.

1. Take the phone in port P1 off-hook
2. Press # * 1 5 * (three beeps) *
3. Hang up the phone

Answer Any Port

Operates in either the Automatic or Semi-Automatic mode.

When a call comes in, the **Answer Any Port** feature allows any port that is not ringing to also answer the call. Once the call is answered, the LineShare Pro 104 listens for tone access codes to transfer the call to another port.

Conditions which allow the **Answer Any Port** feature to operate:

1. Any time between ring signals to the Primary port
2. After a **No Answer Transfer** occurs
3. When **Distinctive Ring Service Detection** is activated

Conditions which restrict the **Answer Any Port** feature:

1. **Automatic Primary Port Transfer**
2. **Single Frequency Tone Transfer**
3. **Tone Access Code Transfer**

(In the Semi-Automatic mode, **Single Tone Detection** will be activated when a device answers a call.)

The factory setting for the **Answer Any Port** feature is OFF.

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [6] [*] (three beeps) [*]
3. Hang up the phone

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [6] [*] (three beeps) [*]
3. Hang up the phone

Pulse Dial Transfer

Operates in either the Automatic or Semi-Automatic mode.

This feature allows rotary/pulse dial phones to transfer calls to another port on the LineShare Pro 104. The **Pulse Dial Transfer** codes are [3] for port P1, [4] for port P2, [5] for port P3, [6] for port P4.

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

Pulse dial transfer is allowed after a call has been answered (and/or transferred) from any device connected directly to any port of the LineShare Pro 104.

On an outbound call, pulse dial transfers are allowed 20 seconds after dialing the last digit of the phone number.

Semi-Automatic mode

Pulse dial transfer is allowed after a call has been answered (and/or transferred) from any extension phone, as well as phones connected to any port of the LineShare Pro 104.

On an outbound call, pulse dial transfers are allowed 20 seconds after dialing the last digit of the phone number.

Pulse dial transfers cannot be initiated by the calling party. Calls can only be pulse transferred from phones connected to the LineShare Pro 104 (depending on operating mode).

The factory setting for **Pulse Dial Transfer** is ON.

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [7] [*] (three beeps) [*]
3. Hang up the phone

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [7] [*] (three beeps) [*]
3. Hang up the phone

Pound Key Transfer Required

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to determine whether or not the # key is required to transfer to a port on an inbound call, or for entering the remote programming mode using the **Security Access Code.**

If this feature is turned OFF, you or the caller can transfer a call to any port on the LineShare Pro 104 by entering the access code required for the port without entering the # key. However, if an incorrect access code is entered, the caller can re-enter the access code with the # key included to complete a transfer.

With this feature turned ON, if an incorrect access code is entered, you or the caller can simply re-enter the access code (with the # key) to transfer the call.

The factory setting for the **Pound Key Transfer Required** feature is ON.

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press # * 0 8 * (three beeps) *
3. Hang up the phone

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press # * 1 8 * (three beeps) *
3. Hang up the phone

Single Tone Detection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to detect single frequency tones (for the duration of the **Single Tone Detection Timer**) from various data devices. It recognizes the following tones:

- 1100Hz Fax CNG tone (if turned ON)
- 2225Hz reverse modem tone (if turned ON)
- a 1300Hz modem calling tone (if turned ON)

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

Once the LineShare Pro 104 answers a call, it will listen for and transfer calls when a single frequency tone is detected. The **Single Tone Detection Timer** begins when the LineShare Pro 104 answers the call. After this timer expires, calls can only be transferred using the tone and pulse access codes.

Semi-Automatic mode

The **Single Tone Detection Timer** begins when the call is answered. Once the call is answered, the LineShare Pro 104 will listen for and transfer calls when a single frequency tone is detected. After the timer expires, transfers will require tone and pulse access codes.

The factory setting for **Single Tone Detection** is ON.

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press # * 0 9 * (three beeps) *
3. Hang up the phone

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press # * 1 9 * (three beeps) *
3. Hang up the phone

NOTE This feature supersedes the following features: **Fax CNG Detection, Modem Calling Tone Detection, Reverse Modem Detection.** If **Single Tone Detection** is turned OFF, these features will not operate even if they are programmed ON.

Fax CNG (Calling) Tone Detection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to detect an 1100 Hz Fax CNG tone.

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

Once the LineShare Pro 104 answers a call, it will listen for and transfer calls when a CNG tone is detected.

Semi-Automatic mode

Once a call is answered, the LineShare Pro 104 will listen for and transfer calls when a CNG tone is detected.

The factory setting for **Fax CNG Tone Detection** is ON.

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press # * 0 1 0 * (three beeps) *
3. Hang up the phone

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press # * 1 1 0 * (three beeps) *
3. Hang up the phone

Modem Calling Tone Detection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to detect a 1300 Hz modem calling tone.

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

Once the LineShare Pro 104 answers a call, it will listen for and transfer calls when a modem calling tone is detected.

Semi-Automatic mode

Once a call is answered, the LineShare Pro 104 will listen for and transfer calls when a modem calling tone is detected.

The factory setting for **Modem Calling Tone Detection** is OFF.

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press # * 1 1 1 * (three beeps) *
3. Hang up the phone

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press # * 0 1 1 * (three beeps) *
3. Hang up the phone

Reverse Modem Tone Detection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to detect a 2225 Hz reverse modem tone.

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

Once the LineShare Pro 104 answers a call, it will listen for and transfer calls when a reverse modem tone is detected.

Semi-Automatic mode

Once a call is answered, the LineShare Pro 104 will listen for and transfer calls when a reverse modem tone is detected.

The factory setting for **Reverse Modem Tone Detection** is ON.

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [1] [2] [*] (three beeps) [*]
3. Hang up the phone

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [1] [2] [*] (three beeps) [*]
3. Hang up the phone

Distinctive Ring Service (DRS) Detection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the LineShare Pro 104 to recognize the various ring signals from the phone company when **DRS** is activated. It works with **DRS Assignment** to automatically transfer calls to any port on the LineShare Pro 104 without identifying tones or transfer codes.

See Distinctive Ring service on pages 13-14 for a detailed description of operating procedures.

The factory setting for **Distinctive Ring Service Detection** is OFF.

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [1] [3] [*] (three beeps) [*]
3. Hang up the phone

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [1] [3] [*] (three beeps) [*]
3. Hang up the phone

Caller ID

Operates in either the Automatic or Semi-Automatic mode. (Caller ID requires service activation from the phone company.)

This feature allows Caller ID devices to be connected directly to the Primary port of the LineShare Pro 104.

Operation in the Automatic mode and Semi-Automatic mode varies as follows:

Automatic mode

When the LineShare Pro 104 is in the Automatic mode, the first ring of a call passes directly to the Primary port. Between the first and second rings, the Caller ID will display its information. The LineShare Pro 104 answers the call before the start of the second ring and processes the call normally.

Semi-Automatic mode

In this mode, Caller ID is always ON. When a call comes in, the first ring of a call passes directly to the Primary port. Between the first and second rings, the Caller ID will display its information, and the call is then processed normally.

NOTE If **Distinctive Ring Service Detection** is turned on, the second ring will be processed as described in "**Distinctive Ring service.**"

The factory setting for **Caller ID** is OFF.

To turn this feature ON

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [1] [4] [*] (three beeps) [*]
3. Hang up the phone

To turn this feature OFF

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [1] [4] [*] (three beeps) [*]
3. Hang up the phone

Emergency Call Override Selection

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the **Emergency Call Override** feature to operate with the LineShare Pro Master, or the phone company 3-way calling service.

See **Emergency Call Override** for operating procedures with the LineShare Pro 104.

The factory setting for **Emergency Call Override Selection** is set for operation with the Dispatcher DP1 [#] [*] [0] [1] [5] [*] [*]

To set the LineShare Pro 104 for operation with the 3-way calling feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [1] [1] [5] [*] (three beeps) [*]
3. Hang up the phone

To set the LineShare Pro 104 for operation with the LineShare Pro Master, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [0] [1] [5] [*] (three beeps) [*]
3. Hang up the phone

Operating mode

The **Operating mode** can be set in either the Automatic or Semi-Automatic mode as previously described.

The factory setting is for operation in the Automatic mode [#] [*] [2] [0] [*] [*]

To set the LineShare Pro 104 for Semi-Automatic mode, perform the following steps:

1. Take the phone in port P2 off-hook
2. Press [#] [*] [2] [1] [*] (three beeps) [*]
3. Hang up the phone

Port Tone Assignment

Operates in either the Automatic or Semi-Automatic mode.

This feature designates where the LineShare Pro 104 will transfer a call that produces the following identifying tones:

1100Hz CNG tone (if turned ON)

2225Hz reverse modem tone (if turned ON)

1300Hz modem calling tone (if turned ON)

The tones can be set to transfer automatically (depending on operating mode) to any port on the LineShare Pro 104.

The LineShare Pro 104 looks for a 4 digit code to set the port designations for receiving tone transfers. The first digit represents port P1, the second digit represents port P2, the third digit represents port P3, and the fourth digit represents port P4. The LineShare Pro 104 cannot be set to transfer any tone to more than one port.

Following are the digits that represent the tones for setting port designations:

0	No tone assigned
1	1100Hz CNG
2	2225Hz reverse modem tone
3	2225Hz reverse modem tone and 1100Hz CNG
4	1300Hz modem calling tone
5	1300Hz modem calling tone and 1100Hz CNG
6	1300Hz modem calling tone and 2225Hz reverse modem
7	1300Hz modem calling tone, 2225Hz reverse modem and1100Hz CNG

P1 P2 P3 P4

The factory setting for **Port Tone Assignment** is [#] [*] [3] [0] [0] [1] [2] [4] [*] [*]
To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [3] [0] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent selection of tones)
3. Hang up the phone

Do not assign a tone to more than 1 port, or an error tone will be heard during programming.

Emergency Call Override

Operates in either the Automatic or Semi-Automatic mode.

This feature allows the Primary port to interrupt a call in process on another port. **Emergency Call Override** operates in conjunction with the LineShare Pro Master, or the phone company three-way calling service (**Emergency Call Override Selection**). Operation of this feature is provided through the Primary port, and can be set for automatic or manual operation.

Automatic operation

When a call is in process on a port and a phone connected to the Primary port goes off-hook, the LineShare Pro 104 will automatically release the line as described in **Emergency Call Override** (page 18).

Manual operation

When a call is in process on a port while a phone connected to the Primary port goes off-hook and the # key is pressed and released, the LineShare Pro 104 will release the line as described in **Emergency Call Override** (page 18)

The factory setting for **Emergency Call Override** is OFF. # * 3 1 0 * *

To set the LineShare Pro 104 for Automatic Emergency Call Override, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 3 1 2 * (three beeps) *
3. Hang up the phone

To set the LineShare Pro 104 for Manual Emergency Call Override, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 3 1 1 * (three beeps) *
3. Hang up the phone

Rings to Answer Call

Operates in the Automatic mode only.

This feature determines how many times an incoming phone call rings before it is answered by the LineShare Pro 104. The factory setting is 1 ring to permit the LineShare Pro 104 to answer and transfer calls as quickly as possible. Under normal circumstances, it is not necessary to change this setting.

This feature has a range of 1 to 99 rings to answer a call. If this ring count is set higher than 1 ring and a call is answered from an extension phone before the LineShare Pro 104 answers, the single tone and rotary/pulse transfer is deactivated. The tone transfer access codes still function only if preceded by the # key.

The factory setting for the **Rings to Answer Call** is 1 ring. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 4 0 ☐ ☐ * (three beeps) *
   (blank keys represent new **Rings to Answer Call**)
3. Hang up the phone

Rings to Port P1

Operates in either the Automatic or Semi-Automatic mode.

This feature determines the number of rings that the LineShare Pro 104 provides to port P1 with a range of 1-99 rings.

The factory setting for the **Rings to Port P1** is 6 rings. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 4 1 ▢ ▢ * (three beeps) *
   (blank keys represent new **Rings to Port P1**)
3. Hang up the phone

Rings to Port P2

Operates in either the Automatic or Semi-Automatic mode.

This feature determines the number of rings that the LineShare Pro 104 provides to port P2 with a range of 1-99 rings.

The factory setting for the **Rings to port P2** is 6 rings. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 4 2 ▢ ▢ * (three beeps) *
   (blank keys represent new **Rings to Port P2**)
3. Hang up the phone

Rings to Port P3

Operates in either the Automatic or Semi-Automatic mode.

This feature determines the number of rings that the LineShare Pro 104 provides to port P3 with a range of 1-99 rings.

The factory setting for the **Rings to Port P3** is 6 rings. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 4 3 ▢ ▢ * (three beeps) *
   (blank keys represent new **Rings to Port P3**)
3. Hang up the phone

Rings to Port P4

Operates in either the Automatic or Semi-Automatic mode.

This feature determines the number of rings that the LineShare Pro 104 provides to port P4 with a range of 1-99 rings.

The factory setting for the **Rings to Port P4** is 6 rings. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 4 4 ▢ ▢ * (three beeps) *
   (blank keys represent new **Rings to Port P4**)
3. Hang up the phone

Primary Port Transfer Timer

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the timing parameters for operation of the **Automatic Primary Port Transfer**. It is designed to accommodate the timing parameters of fax machines that do not produce CNG tones.

When using the **Automatic Primary Port Transfer** feature, set this feature to 10 seconds longer than the outgoing announcement message. If the outgoing announcement message is 10 seconds, set this timer to 20 seconds. This will allow adequate time for non-CNG faxes to reach the fax machine, yet allow callers to leave messages on the answering machine without transferring to the Secondary port when the call is complete (if the message is longer than 10 seconds).

This feature has a range of 0-99 seconds. If 0 or 00 is entered, the **Automatic Primary Port Transfer** will always transfer calls to the Secondary port regardless of time on the line.

The factory setting for the **Primary Port Transfer Timer** is 30 seconds. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [5] [0] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Primary Port Transfer Timer** setting)
3. Hang up the phone

Ring Reduction Reset Timer

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the timing parameters for operation of **Automatic Ring Reduction** and **Automatic Ring Reduction Reset**. It is activated when the **Automatic No Answer Transfer** transfers a call to the **Secondary Port Selection**, and the **Automatic Ring Reduction** reduces the **Rings Available to Port P1** (Primary port) to 2 rings.

When this feature is activated, the LineShare Pro 104 monitors all ports for activity. If there is no activity for 30 minutes, the **Automatic Ring Reduction Reset** will restore the previous number of rings to the Primary port.

This feature has a range of 1-60 minutes. The **Rings to Port P1** (Primary port) can be reset manually as previously described.

The factory setting for the **Ring Reduction Reset Timer** is 30 minutes. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [5] [1] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Ring Reduction Reset Timer** setting)
3. Hang up the phone

Single Tone Detection Timer

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the timing parameters for operation of the **Single Tone Detection** feature.

When **Single Tone Detection** is activated, but this timer expires on a call, the LineShare Pro 104 will not transfer calls producing identifying tones.

This feature has a range of 4-30 seconds.

The factory setting for the **Single Tone Detection** Timer is 10 seconds. To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [5] [2] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Single Tone Detection Timer** setting)
3. Hang up the phone

Remote Security Access Code

Operates in the Automatic mode.

This feature designates the tone access code that will be required to program the LineShare Pro 104 from a remote location.

Once entered, the LineShare Pro 104 stores it in non-volatile memory until removed through programming.

The **Remote Security Access Code** can be any numeric 1-4 digits not including the [#] key. See **Pound Key Transfer Required** for use with the **Remote Security Access Code**. Do not use a transfer code for a port on the ASAP 104 or [0] [0] [0] [0] as it will disable remote programming.

The factory setting for the **Remote Security Access Code** is unprogrammed for your protection. It must be entered before you can access the remote programming mode. To enter an access code, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [6] [0] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Remote Security Access Code**)
3. Hang up the phone

Port P1 Transfer Code

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the tone access code that will be required to transfer a call from either port P2, P3 P4, or extension phones, to port P1.

The **Port P1 Transfer Code** can be any numeric 1-4 digits not including the [#] key. See **Pound Key Transfer Required** for use with the **Port P1 Transfer Code**. Do not use a code that is a transfer code for a port on the LineShare Pro 104.

The factory setting for the **Port P1 Transfer Code** is [1] [1] To enter a new access code, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [6] [1] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Port P1 Transfer Code**)
3. Hang up the phone

A code of [0] [0] [0] [0] will disable tone access

Port P2 Transfer Code

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the tone access code that will be required to transfer a call from either port P1, P3 P4, or extension phones, to port P2.

The **Port P2 Transfer Code** can be any numeric 1-4 digits not including the [#] key. See **Pound Key Transfer Required** for use with the **Port P2 Transfer Code**. Do not use a code that is a transfer code for a port on the LineShare Pro 104.

The factory setting for the **Port P2 Transfer Code** is [2] [2] To enter a new access code, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [6] [2] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Port P2 Transfer Code**)
3. Hang up the phone

A code of [0] [0] [0] [0] will disable tone access

Port P3 Transfer Code

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the tone access code required to transfer a call from either port P1, P2, P4, or extension phones to port P3.

The **Port P3 Transfer Code** can be any numeric 1-4 digits not including the [#] key. See **Pound Key Transfer Required** for use with the **Port P3 Transfer Code**. Do not use a code that is a transfer code for a port on the LineShare Pro 104.

The factory setting for the **Port P3 Transfer Code** is [3] [3] To enter a new access code, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [6] [3] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Port P3 Transfer Code**)
3. Hang up the phone

A code of [0] [0] [0] [0] will disable tone access

Port P4 Transfer Code

Operates in either the Automatic or Semi-Automatic mode.

This feature designates the tone access code required to transfer a call from either port P1, P2, P3, or extension phones to port P4.

The **Port P4 Transfer Code** can be any numeric 1-4 digits not including the [#] key. See **Pound Key Transfer Required** for use with the **Port P4 Transfer Code**. Do not enter a code that is a transfer code for a port on the LineShare Pro 104.

The factory setting for the **Port P4 Transfer Code** is [4] [4] To enter a new access code, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [6] [4] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
   (blank keys represent new **Port P4 Transfer Code**)
3. Hang up the phone

A code of [0] [0] [0] [0] will disable tone access

Primary Port Selection

Operates in either the Automatic or Semi-Automatic mode.

This feature designates where the call is routed when tone transfer codes are not detected in the Automatic mode, or any inbound call when the LineShare Pro 104 is in the Semi-Automatic Mode. Calls can be designated to any of the 4 ports other than the **Secondary Port Selection**.

The factory setting for **Primary Port Selection** is port P1 [#] [*] [7] [1] [1] [*]

To select transfer to port P2

1. Take the phone in port P1 off-hook
2. Press [#] [*] [7] [1] [2] [*] (three beeps) [*]
3. Hang up the phone

To select transfer to port P3

Press [#] [*] [7] [1] [3] [*] (three beeps) [*]

To select transfer to port P4

Press [#] [*] [7] [1] [4] [*] (three beeps) [*]

Secondary Port Selection

Operates in either the Automatic or Semi-Automatic mode.

This feature designates where the call is routed when the **Automatic No Answer Transfer** feature or the **Primary Port Transfer** feature is activated. Calls can be designated to any of the 4 ports other than the **Primary Port Selection.**

The factory setting for **Secondary Port Selection** is port P2 [#] [*] [7] [2] [2] [*]

To select transfer to port P1

1. Take the phone in port P1 off-hook
2. Press [#] [*] [7] [2] [1] [*] (three beeps) [*]
3. Hang up the phone

To select transfer to port P3

Press [#] [*] [7] [2] [3] [*] (three beeps) [*]

To select transfer to port P4

Press [#] [*] [7] [2] [4] [*] (three beeps) [*]

DRS Assignment

Operates in either the Automatic or Semi-Automatic mode.

This feature designates where the LineShare Pro 104 will transfer a call using the Distinctive Ring service. It has the ability to recognize the following ring signals:

[0] no ring assigned
[1] standard ring
[2] two-burst ring
[3] three-burst ring (short-short-long)
(short-short-short)
(long-long-long)
(long-short-short)
(short-long-long)
[4] three-burst ring (short-long-short)
(long-short-long)
(long-long-short)

The LineShare Pro 104 looks for a 4 digit entry to set the port designations for the individual rings. The first digit represents port P1, the second digit represents port P2, the third digit represents port P3, and the fourth digit represents port P4. The LineShare Pro 104 cannot be set to transfer a ring signal to more than one port.

The factory setting is [#] [*] [8] [0] [1] [2] [3] [4] [*] which transfers a standard ring to port P1, a two-burst ring to port P2, a three-burst ring (above) to port P3, and a three-burst ring (above) to port P4.

To change this feature, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press [#] [*] [8] [0] [ ] [ ] [ ] [ ] [*] (three beeps) [*]
(blank keys represent new **DRS Assignment**)
3. Hang up the phone

NOTE If a ring burst is not assigned, the LineShare Pro 104 will not respond to the incoming call designated to that phone number.

Each ring burst can be assigned to one port; if you attempt to assign a ring burst to more than one port, the LineShare Pro 104 will give an error tone.

Phantom Ring Style

Operates in either the Automatic or Semi-Automatic mode.

In the Automatic mode, the LineShare Pro 104 answers the call and produces a "phantom" ring signal, making the switching process transparent to the caller.

In the Semi-Automatic mode, it will produce this ring signal any time a call is transferred to a port from an identifying tone, an access code, or from the **Automatic Primary Port Transfer** feature.

(The LineShare Pro 104 has 4 different ring signals to choose from, allowing you to select a style similar to your local phone company's ring signal.)

The following ring types are available:

	Ringback Selection	Break Time	Ring Time	Single Tone/ Dual Tones
0	None	N/A	N/A	N/A
1	USA	4 sec	2 sec	Dual
2	Special #1	4 sec	2 sec	Single
3	Special #2	5 sec	1 sec	Dual
4	Special #3	5 sec	1 sec	Single

The factory setting is # * 8 1 1 * which is the common US ring signal.

To change this feature, perform the following steps:

1. Take the phone in port P2 off-hook
2. Press # * 8 1 ☐ * (three beeps) *
   (the blank key represents new **Phantom Ring Style**)
3. Hang up the phone

Reset to Factory Settings

To reset all features and feature settings to their original factory settings, perform the following steps:

1. Take the phone in port P1 off-hook
2. Press # * 9 9 9 * (three beeps) *
3. Hang up the phone