

# Installation Instructions

## PhoneLink Wireless Dial Tone Extender System -- Model PLS100

Rev. May 7, 2007

PhoneLink extends a standard 2-wire, dial-up telephone line into areas not accessible by wire. PhoneLink is a wireless system that uses radios (RF) to transmit voice and data connections across physical barriers. It does not use power lines to carry the signal.

The system consist of a Base unit and a Remote unit pair. The Base connects to a standard telephone company phone line and the Remote is placed where the phone line is desired. The Remote re-generates (mimics) the operation of the phone line at the Base. The system operates in the license-free 900 Mhz band with operation and signal range similar to 900 Mhz cordless phones. PhoneLink replaces the cordless phone handset with the Remote unit that is installed at a fixed location where it regenerates the phone line complete with ring voltage, dial tone and loop current. Signal range is typically 100-500 feet.

The Remote supports the use of a standard telephone, computer modem and fax machine as though wire was used the entire way. Other end devices can be used with PhoneLink such as: point-of-sale terminals; telemetry equipment; electric meters; security devices; and remote control systems. Dial-up modem connections up to 28.8K are possible. Calls can be placed in either direction just like a regular phone line. Ringing detected at the Base is regenerated at the Remote. A phone or modem going off-hook and dialing at the Remote is duplicated at the Base. Both wireless units include an antenna, plug-in wall transformer, and a standard RJ-11 modular phone jack. Status LEDs are included. Warning ! -- Use only the antennas supplied with this equipment.

Although PhoneLink is similar to cordless phones, it is not compatible or interchangeable with cordless phone units. PhoneLink uses a different frequency channel than cordless phones and includes a security feature that prevents unauthorized access.

### **INSTALLATION**

1. Install the Base and Remote units in a clear area on a wall or table top. Best signal range is obtained when the units are as high off the ground as possible and with the least amount of objects cluttering the area between them. Walls and metal between wireless units greatly reduce signal range. Signal range is best when the antennas are vertical and kept as far as possible from metal walls and other metal objects. The antennas include a flexible joint allowing them to be positioned vertical. Be sure the antenna is snuggly attached to the wireless unit.
2. Connect a wall power transformer to each wireless unit and then plug-in the transformer to a standard 120vac wall outlet. The green Power LED should light.
3. Connect the telephone company line to the modular phone jack on the Base unit.
4. Connect your end equipment -- phone, computer modem, fax, etc. -- to the modular jack on the Remote unit. Use the same modular type phone wiring between the Remote unit and your end equipment.

Warning ! -- Do NOT connect the phone company line to the Remote unit.

## **OPERATION**

An incoming call is presented as a ringing voltage at the Base unit and is indicated by the flashing of the red Ring/Off-Hook LED. With each ring detected, the Remote unit in-turn generates ringing to your end device. The red Ring/Off-Hook LED on the Remote flashes as well. Taking your end device off-hook stops the ringing and completes the phone line connection through the PhoneLink units as though wire was connected all the way.

A call can be initiated at the Remote unit end by taking your end device off-hook. Doing so will light the red Ring/Off-Hook LEDs on both units. The dial tone from the phone company is passed through the PhoneLink units and heard at your end device. DTMF dialing tones can be used as usual. A call is terminated by placing your end device back on-hook.

The yellow Signal LED indicates that a wireless signal path exists between the two wireless units. A solidly lighted yellow LED indicates a solid signal. Any flickering or momentary drop-out suggests a weak signal and steps should be taken to move one or both of the wireless units to improve the signal. The yellow Signal LED is driven by the radio receiver at each unit and is a measure of the signal received from the other unit. These LEDs are active only during off-hook conditions.

Note: The PhoneLink system will not work unless a solid wireless signal path exists between the units. The yellow Signal LEDs indicate the signal quality. An off-hook condition at the Remote unit will not be passed to the Base without a good strong signal between the units. Ringing detected at the Base will not be passed to the Remote without a good strong signal.

## **FCC STATEMENTS** and **USER NOTIFICATIONS**

- Do NOT make changes or modifications to this equipment. Changes or modifications not expressly approved by the manufacturer may degrade performance, may violate FCC rules, may void user's authority to operate this equipment, and may void manufacturer's warranty.

- Warning ! -- Use only the antennas supplied with this equipment. Other antennas may degrade performance and violate FCC rules.

- This equipment has been tested and found to comply with the limits for a Class-A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesirable operation. FCC ID: U3I - PLS100

## **SPECIFICATIONS**

Phone Line	- standard 4-pin modular RJ-11 phone jack - connects standard 2-wire, dial-up "POTS" telephone line (Base unit) - generates standard U.S. ring voltage and loop current (Remote unit) - complies with FCC Part 68 rules
Radio	- license-free 902-928 ISM Band - 0 dBm transmitter power (similar to cordless phones) - 500 ft. range line-of-sight outdoors typical (less indoors) - includes flexible whip antenna - complies with FCC Part 15 rules
Throughput	- supports standard 300-3600 Hz telephone line bandwidth - voice and data up to 28.8k dial-up speed - DTMF dialing (dial pulse not supported)
Power	- 9-12 vdc using 2.5mm power connector - 120 vac using supplied plug-in wall transformer
Indicators	- 3 LEDs -- Power, Signal, Ring / Off-Hook
Misc.	- 0 to 70 C temperature - 6.8" L x 4.5" W x 1.8" H aluminum enclosure - includes .210 dia. mounting holes (4)

(specifications subject to change without notice)

## **ORDERING INFORMATION**

PhoneLink is purchased as a system comprised of several items.

<u>Description</u>	<u>Model Number</u>
complete PhoneLink system	<b>PLS100</b>

Each PhoneLink system is supplied with the following items:

<u>Description</u>	<u>Part Number</u>
1 - Base Unit	PLB100
1 - Remote Unit	PLR100
2 - Whip Antenna	PLA100
2 - Wall Transformer	PLT100
1 - Installation Instructions	

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