



ComLink Defender

Model 2424

Field Installation Guide

DOC-036-01

IMPORTANT NOTICE

Before installing the *ComLink Defender Model 2424* equipment, it is important that you completely review this document and any other documents provided by suppliers of related equipment (such as telephone sets). Proper review of this information and careful advanced planning will reduce the possibility of errors in the installation process.

⚠ Failure to properly install and test the *ComLink Defender Model 2424* controller may result in loss of revenue from fraudulent calls. Potential losses from an improperly programmed or installed controller may be virtually unlimited.

1. WARRANTY INFORMATION

- 1.01 The *ComLink Defender Model 2424* is manufactured by Omniphone, Inc. The product is covered by a limited manufacturer's warranty which is printed in the back of this Field Installation Guide. Please read the description of the warranty before installing or operating the equipment.
- 1.02 There is a warranty seal on the back of the *ComLink Defender Model 2424*. If this seal is broken, the warranty will be void.

2. EQUIPMENT SERIAL NUMBERS

- 2.01 Each *ComLink Defender Model 2424* has a unique serial number. The serial number is important for establishing your warranty coverage. Enclosed with the packing documents for each shipment is a list of product serial numbers along with a corresponding shipping date. Retain this document for your records.

3. PLANNING

- 3.01 Select the appropriate location for installation of the *ComLink Defender Model 2424* equipment by determining 115 VAC availability, grounding arrangements, routing of station wiring, and routing of wiring to the telephone company interface. Check to insure that all required equipment and tools are available before you start. The tools you will need vary depending upon the needs of each particular installation.

4. EQUIPMENT DESCRIPTION

- 4.01 The *ComLink Defender Model 2424* is designed to allow up to 24 coinless inmate telephone sets to share up to 24 central office telephone lines. It is an intelligent device which provides automated call completion and retains a detailed record of each call. It is designed to be mounted in any convenient location on the same premises as the telephone sets. Most commonly, this means a nearby equipment room.
- 4.02 The *ComLink Defender Model 2424* is not designed to operate coin telephones.
- 4.03 The station lines are connected to the *ComLink Defender Model 2424* via a standard 25 pair cable terminated in a 50-pin telco male connector. The female station socket, located on the back of the *ComLink Defender Model 2424*, is labeled "Station Lines 1-24".

- 4.04 The telephone company central office lines are connected to the *ComLink Defender Model 2424* via a standard 25 pair cable terminated in a 50-pin telco female connector. The male station socket, located on the back of the *ComLink Defender Model 2424*, is labeled “Central Office Lines 1-24”. Standard loop start central office lines should be ordered from your local telephone service provider, or the lines may be provided by other equipment, such as a PBX.
- 4.05 The *ComLink Defender Model 2424* controller is powered by 115 VAC 60 Hertz standard North American electrical current. A cord is provided to connect the unit with a wall outlet. Use of an uninterrupted power supply is recommended but not required.
- 4.06 An ethernet communications connection is provided on the rear of the unit. This connection can be used to network multiple *ComLink Defender Model 2424* units for the purpose of connecting them to a computer operating *SentryLink* on-site administration software. A customer supplied ethernet switch and network cabling is required for these connections.
- 4.07 An RS-232 connection located on the rear of the *ComLink Defender Model 2424* can be used to download voice files and/or other information via a standard PC. Special utility software is required.
- 4.08 A modem connection (RJ-11 jack) is provided on the rear of the *ComLink Defender Model 2424* for the purpose of downloading and uploading files. This can be a dedicated connection or you can choose to share this line with one of the central office lines being used for inmate call traffic.
- 4.09 There are 49 LED's visible when viewing the front of the *ComLink Defender Model 2424*. A red LED, labeled “Power”, illuminates when AC power is connected to the unit. Each station line has one yellow LED which is illuminated when the station is “off-hook”. Each central office line has one green LED which indicates that the *ComLink Defender Model 2424* has seized the corresponding central office line.

Any central office port on the *ComLink Defender Model 2424* that is programmed with a telephone number via the PhoneTracker Management Software should have a working central office line connected. If the *ComLink Defender Model 2424* detects no line connected to any port that is assigned a phone number, then the green LED for that central office port will continuously flash slowly.

In addition, when a station goes off-hook, the *ComLink Defender Model 2424* will reserve an available central office port. The green LED for that reserved central office port will maintain a fast flash until that central office port seizes central office dial tone. When central office dial tone is seized, the green LED for that central office port will stop flashing and remain lit until call termination.

- 4.10 The program which controls the operation of the *ComLink Defender Model 2424* controller is permanently stored in the device's internal memory. This program may be updated from time to time with enhancements. Program updates are normally transmitted via modem and do not require any physical alteration to the product.

- 4.11 Each *ComLink Defender Model 2424* is programmed by the owner with information specific to its location such as rates to charge for calls, definitions of local exchanges, and operating options. If the equipment is moved from one location to another, it will probably require reprogramming via its modem to operate at the new location.
- 4.12 The *ComLink Defender Model 2424* also contains volatile memory which, due to its non-permanent nature, is lost when power is not available to it. In order to preserve this memory during power failures, a 3 volt lithium battery is provided. It is a Panasonic BR2330 (or equivalent) and can be ordered from Omniphone, Inc. or purchased from a local electronic supply house. Lithium batteries, unlike nicad batteries which are frequently found in electronic devices, do not recharge. For this reason, the battery must be replaced from time to time to insure that it is capable of providing power when needed.
- 4.13 An additional memory protection feature of the *ComLink Defender Model 2424* is a large capacitor which stores enough energy to maintain memory for several hours. This serves two purposes: it allows the battery to be changed without worry of memory loss; and it provides adequate power during normal brief power outages to protect the memory even if the battery has not been replaced and no longer holds a charge.

5. INSTALLATION PROCESS

 **Do not plug the power cord into a wall outlet or other power source at this time.**

- 5.01 Locate the two brackets included in your shipment and attach the two brackets to each side of the *ComLink Defender Model 2424*. Attach the brackets vertically for use with a relay rack or horizontally for wall mounting
- 5.02 Hold the *ComLink Defender Model 2424* against a wall or other flat surface or relay rack to determine the best mounting position. Carefully consider such factors as routing of wiring, availability of AC power, protection from the elements, and security from possible tampering by unauthorized personnel. Proper operation is not dependent upon the mounting position.
- 5.03 Locate the two mounting holes on each bracket. Holding the *ComLink Defender Model 2424* against the wall and using a level, mark the mounting surface at each hole using a pencil or pen. Remove the unit from the wall.
- 5.04 Make the necessary preparations to the installation surface such as mounting wall bolts or drilling starter holes for wood screws. Attach the *ComLink Defender Model 2424* to the wall or mount it in a relay rack. Due to widely varying requirements, mounting hardware, such as wall bolts, wood screws, or relay rack screws are not provided with the *ComLink Defender Model 2424*. Use caution when installing the equipment.
- 5.05 The *ComLink Defender Model 2424* may be placed on a horizontal surface such as a shelf or tabletop. In this case, the brackets may be used or not as dictated by the individual situation.
- 5.06 When mounting the *ComLink Defender Model 2424* to a vertical surface, consideration should be given to the attachment of connecting wiring to one end of the device. Adequate clearance should be provided. Although equipment operation is equally insured regardless of mounting angle, a level should be used to insure that the installation is completed in a neat and professional manner.

- 5.07 Locate the male output connection labeled “Central Office Lines 1-24” on the back of the *ComLink Defender Model 2424*. A user-provided twenty-five pair cable terminated in a female telco connector should be connected to provide dial tone to the *ComLink Defender Model 2424*. The other end of the cable should be suitably terminated to a connecting block or other device to provide up to 24 central office dial tones to the first twenty-four pairs of wires in the twenty-five pair cable. Note that the dial tone may be provided by a telephone company central office or by other equipment.
- 5.08 Locate the female output connection labeled “Station Lines 1-24” on the back of the *ComLink Defender Model 2424*. A user-provided twenty-five pair cable terminated in a male telco connector should be connected to provide connection to local stations (telephone sets). The other end of the cable should be suitably terminated to a connecting block or other device to provide up to twenty-four (24) local loops to telephone sets. Note that the sets may be any type of telephone equipment seeking a loop start telephone circuit including standard telephone sets, cordless telephones, and a variety of other equipment.
- 5.09 Locate the modem connection labeled “Modem” on the back of the *ComLink Defender Model 2424*. A user-provided telephone cable terminated in a RJ-11 connector should be connected to provide modem communications to the *ComLink Defender Model 2424* for the purpose of downloading and uploading files. The other end of the cable should be suitably terminated to a connecting block or other device to provide central office dial tone for modem communications. This modem connection can utilize either a dedicated phone line or one shared with another central office dial tone.
- 5.10 If a *SenrtyLink* on-site administration server is being installed at the site, then connect each *ComLink Defender Model 2424* and the server to an unmanaged ethernet switch via standard category 5 cabling.**
- 5.11 Secure all wiring in a neat fashion consistent with good workmanship. This will help avoid confusion during future service calls. Recheck all connections and review the installation to insure you have completed all the steps outlined above.
- 5.12 Connect the power cord to the rear of the *ComLink Defender Model 2424* and insert the other end into a 115 VAC power source such as a wall outlet. Place the on-off switch next to the power plug into the “ON” position. The LED on the front of the unit labeled POWER should illuminate immediately.
- ☞ If the power LED is not lit, immediately disconnect the power cord from the 115 VAC. Do not leave the power cord connected to a 115 VAC power source if the LED is not lit.**
- 5.13 Test your *ComLink Defender Model 2424* controller according to the instructions in the following section.
- ☞ Failure to properly test your installation may result in loss of revenue from fraudulent calls. Potential losses from an improperly programmed or installed controller may be virtually unlimited.**

6. SYSTEM TESTING

- 6.01 Repeat the tests described in this section for each of the twenty-four stations that are connected.

- 6.02 Before any testing, the *ComLink Defender Model 2424* must be programmed as required by the location. Refer to the PhoneTracker Management Software manual for programming information.
- 6.03 Lift one handset at a time and listen for a dial tone or voice prompts depending on how the unit is programmed.
- 6.04 Place one of each of the following types of calls and verify that they are completed or blocked as is appropriate for the type of call placed. You may also dial 211 from the inmate phone to verify the *ComLink Defender Model 2424* unit number and station port number for that phone. The unit number will play first followed by the station port number. The phone's physical location can then be matched with this information for use with the optional on-site SentryLink software and for troubleshooting.
- ✓ Local Automated Collect
 - ✓ Intralata (but not local) Automated Collect
 - ✓ Intrastate (but not intralata) Automated Collect
 - ✓ Interstate (but not intralata) Automated Collect
 - ✓ Free Calls Defined In The Controlled Number File
 - ✓ Any Other Calls Particular To Your Installation
- 6.05 Wink Testing. It is important to verify that your central office does not supply a secondary dial tone without first providing a wink. Proceed as follows:
1. Place a call of any type.
 2. Allow the called party to terminate the call, but remain "off-hook" for at least 20 seconds.
 3. Verify that you do not receive another dial tone from the central office. If you do, and can make another call for "free" which should normally be a call for which there is a charge (local or 1+), refer to the PhoneTracker Management Software Manual for instructions on adjusting the "wink" setting.
- 6.06 Review the call detail records for the calls just placed to insure that calls were made on all connected central office lines.

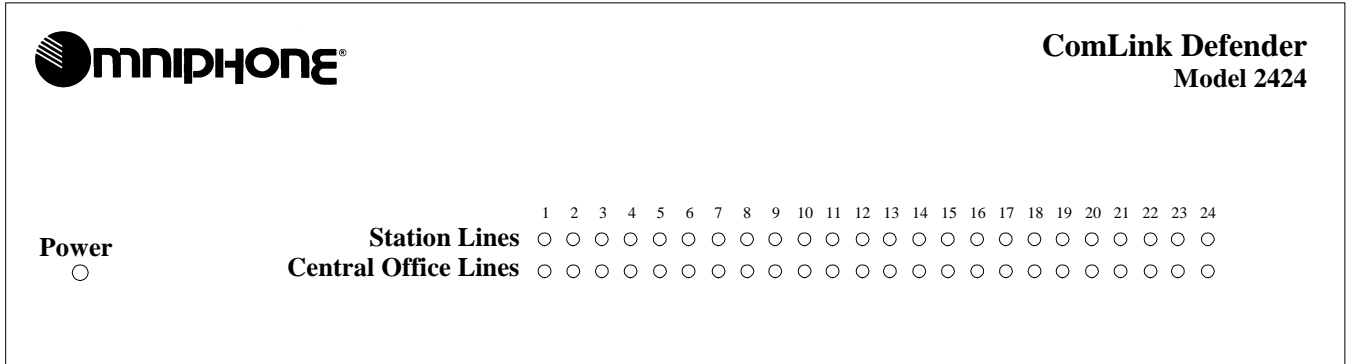
7. ASSISTANCE FROM TECHNICAL SUPPORT

- 7.01 If, after referring to this document and the PhoneTracker Management Software Manual, you still have unanswered questions, call Omniphone for technical assistance.

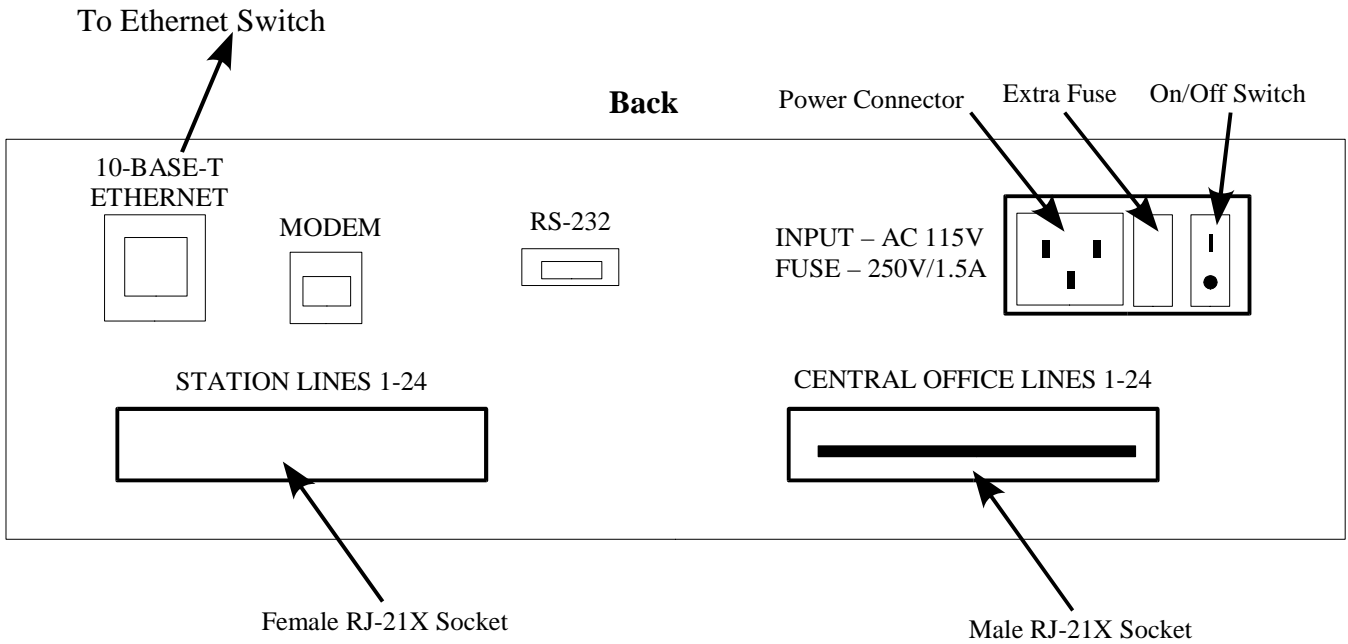
Before you call, please have a brief description prepared to help us identify the installation and testing steps you have taken. Also, be sure to have the serial number from the *ComLink Defender Model 2424* available. The serial number is located on the shipping verification list and on the rear of the unit. This will enable the technician to verify the model number as well as the warranty expiration.

ComLink Defender Model 2424 Illustration

Front



Back



Warranty Notice
Omniphone ComLink Defender Model 2424 Products

Omniphone, Inc. makes no warranties, either express or implied, regarding the accompanying *ComLink Defender Model 2424* controller as to its fitness for any particular purpose. Omniphone, Inc. specifically disclaims any warranty of merchantability, either stated or implied.

If during the first eighteen (18) months from the date of purchase the *ComLink Defender Model 2424* controller fails because of a defect in components or workmanship, it can be returned to Omniphone for repair or replacement at our option. We will pay for the return freight to you using the least expensive means available to us.

Neither Omniphone nor its employees, agents, or assigns are liable or responsible to the purchaser or user in any way whatsoever for loss or damage caused, or alleged to be caused, directly or indirectly by the *ComLink Defender Model 2424* controller, its related software or documentation, including but not limited to interruption of service, loss of business, revenue, or anticipated profits.

This manual describes the proper installation of the *ComLink Defender Model 2424* controller. Omniphone disclaims any responsibility for the operation of the *ComLink Defender Model 2424* controller (other than repair or replacement as described above) even if it was installed according to the instructions in this manual. The *ComLink Defender Model 2424* controller is under the control of a software program which operates according to many options and features which are user programmed and configured. Certain options or combinations of options can result in the equipment being operated in a manner inconsistent with the desired or "normal" operation. The owner of the equipment and not Omniphone, Inc., or any of its subsidiaries, affiliates, or agents, assumes sole responsibility for any liabilities, losses, or damages which may occur as a result of such operation, any other statements, either written or oral, to the contrary notwithstanding.

FCC Part 68 Information

This equipment complies with part 68 of the FCC rules. On the back of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to the telephone company.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of all the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the telephone company, may discontinue your service temporarily. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with your telephone equipment, please contact Omniphone, Inc., P.O. Box 8739, Mobile, Alabama 36689, (251) 639-9639, for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

To comply with state tariffs, the telephone company must be given notification prior to connection. In some states, prior approval of connection must be obtained from the public utility commission, public service commission, or corporation commission.

Installation

This device is equipped with a USOC RJ-21X and RJ-11 connector.

FCC Part 15 Information

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 the 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.