



Open Applications Interface (OAI) Installation and Setup

Link Wireless Telephone System
Link 3000 MCU

Part Number: 72-0059-07
Issue A

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Open Applications Interface

Installation and Setup

Link WTS

Link 3000 MCU

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Note concerning the Link 3000 MCU:

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.

Note concerning shielded cable:

SpectraLink recommends the use of shielded cable for all external signal connections in order to maintain FCC Part 15 emissions requirements.

Note concerning the Wireless Telephones:

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

WARNING Changes or modifications to this equipment not approved by SpectraLink Corporation may cause this equipment to not comply with part 15 of the FCC rules and void the user's authority to operate this equipment.

WARNING SpectraLink products contain no user-serviceable parts inside. Refer servicing to qualified service personnel.

UL Information



This symbol on the nameplate means the product is listed by Underwriter's Laboratories, Inc. It is designed and manufactured to meet rigid U.L. safety standards against X-radiation, fire, casualty, and electrical hazards.

The following are statements required for UL certification, related to safety procedures that must be adhered to during installation.

Follow these general precautions while installing telephone equipment:

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.

When installing Base Stations outside or in buildings other than the one containing the System Controller, take the following precaution:

If wiring for a Base Station exits a building—whether to reach an outdoor Base Station location or to reach a Base Station in another building—the wiring must be protected at both ends by a Quick Clip Fuse from Illinois Tool Works, Linx Division, model number SCP-2X2. The Quick Clip Fuse replaces the bridging clips on the 66 blocks for all four connections to the non-internal Base Station.

FCC Information

The Master Control Unit Complies with Part 68, FCC Rules

FCC Registration Numbers:

Link 3000: IYGUSA-7385Q-PX-T

Ringer Equivalence:

Link 3000: 0.3B

SpectraLink Corporation

Link 3000

Made in the USA

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

This equipment uses RJ-21 connectors.

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 number is called. In most, but not all, areas, the sum of the RENs 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 service may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice isn't 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 this telephone equipment, please contact SpectraLink Corporation for information on obtaining service or repairs.

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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. There are no user serviceable parts in this equipment.

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

Industry Canada (IC) Notice

Notice:

The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational, and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

Notice: The Ringer Equivalence Number (REN) assigned to each terminal device provides as indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices.

REN 0.3B

Approval Numbers:

Link 3000: 2128-9508 A

Warranty and Repair Service Center:

SpectraLink Corporation
5755 Central Avenue
Boulder, CO 80301
303-440-5330

DOC Spread Spectrum certification

Base Station	Cert. No.	2128-K1373
Wireless Telephone	Cert. No.	2128-K1374

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1. About This Document

This document explains installation and setup of the Open Applications Interface System Controller (CSO3xx) by SpectraLink Corporation. OAI provides an interface with a local application server for the Link Wireless Telephone System (Link WTS).

1.1 Contacting SpectraLink

SpectraLink wants every customer to have a successful installation. Please refer questions to our **Customer Support Hotline at (800) 775-5330**. The Hotline is open Monday through Friday, 7:00 AM to 6:00 PM Mountain Time.

1.2 Icons and Conventions

This manual uses the following icons and conventions.



Caution! Follow these instructions carefully to avoid danger.



Note these instructions carefully.

NORM This typeface indicates a key, label, or button on the MCU or OAI card.

1.3 Setup Overview

Installation has three phases. In some cases, a separate person is responsible for each phase. It is important to coordinate the activities among the persons involved.

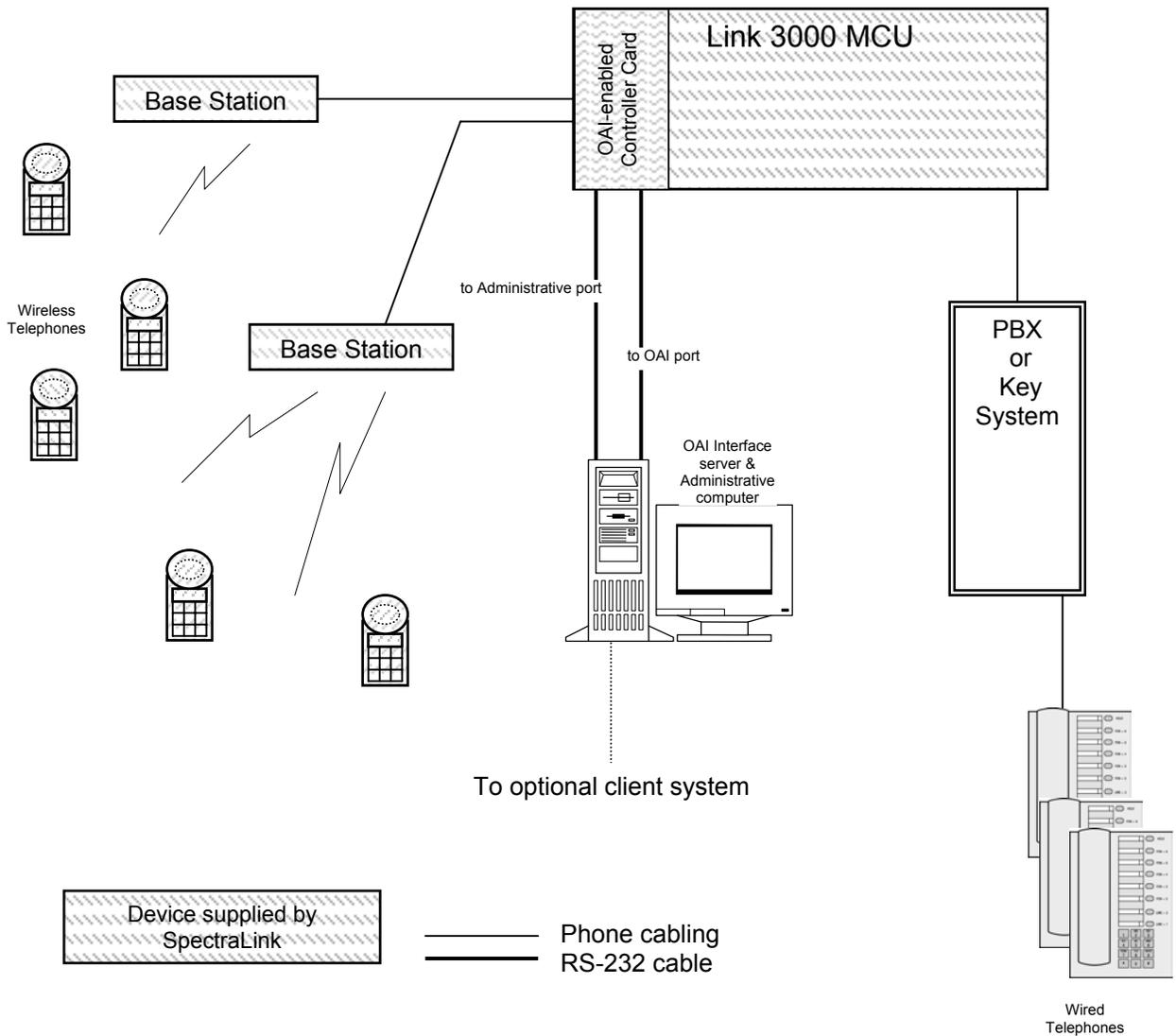
1. **Site Preparation** – done by the customer or a wire technician/contractor.
2. **OAI setup** – done by the customer or SpectraLink.
3. **System Certification** – done after installation to confirm the system is working properly.

For more information about Link WTS architecture and components, please see the appropriate Link WTS document.

2. OAI Overview

The Open Application Interface allows the Link 3000 MCU to interface with an application server as shown in the diagram below. This enables third-party applications to communicate directly with the Link 3000 MCU, allowing users to retrieve and respond to information using Wireless Telephones. The client system may include a LAN and its server with a TAP line to a communications device such as a paging controller.

2.1 System Diagram



3. Install and Configure OAI Card(s)

The Open Application Interface (OAI) allows the Link 3000 MCU to interface with an application server. This connection enables third-party applications to communicate directly with the Link 3000 MCU, allowing users to retrieve and respond to information using Wireless Telephones.

Before loading OAI, the Link WTS should be configured and operational, the Base Stations should be installed and tested, and the Wireless Telephones should be registered and tested.



If you are upgrading an existing system to support OAI, perform Step 3.1 first, then proceed with the installation in Step 3.2 through 3.5.

If you have a new system with an OAI card (CSO3xx), set up the system and then proceed with setting up OAI as described in steps 3.2 through 3.5.

3.1 Upgrade System to Support OAI

This procedure explains how to install the new controller cards to support OAI.



The system must be powered down to complete this process. Users will be unable to use their wireless telephones during this installation.

A. Dump (Back Up) System Configuration

From the Operator's Console **Supervisor State** screen (F1) press Enter to display the menu.

1. Scroll down to **Dump Config to PCS.CFG** and press Enter. The system will copy the configuration to a file called PCS.CFG, and save it in your working directory. If a PCS.CFG file already exists, the system prompts to see if you want to overwrite it.
2. Copy the file to a diskette for safekeeping.

B. Swap Controller Cards

This procedure replaces the existing CSC controller cards with CSO controller cards to support OAI.

1. Power down the system
2. Disconnect and remove the existing CSC system and cabinet controller cards.
3. Install and connect the CSO system controller card.
4. Install and connect the CSO cabinet controller cards.
5. Power up the system.

C. Restore System Configuration

1. On the Operator's Console, go to the directory where the PCS.CFG file was dumped (your working directory).
2. From the **Supervisor State** screen (F1) press Enter to display the menu.
3. Scroll down to **Restore Config from PCS.CFG** and press Enter. The system will copy the configuration from PCS.CFG in your working directory to the System Controller.

Continue with Steps 3.2 through 3.5 to complete the OAI installation.

3.2 Verify System and Cabinet Controllers Support OAI

To support OAI, your system must have a System Controller and Cabinet Controllers with a CSO prefix. Check the labels on the controllers to be sure they support OAI.

On the Operator's Console, verify that the **Supervisor State Display** (F1) details screen for the Cabinet Controller and the System Controller shows OAI as "enabled."

3.3 Configure COM Port for OAI

Either RS-232 port on the System Controller can be used for OAI. If a modem or administration console is connected to the MCU, it must use COM port "A" in which case OAI would use COM port "B". The COM port on an Expansion Shelf can also be assigned to OAI.

To support OAI, one of the COM (RS-232) ports on the MCU must be configured as the OAI port via the following procedure.

1. On the Operator's Console, select **COM Port Administration** (F10).
2. Select the COM port to be assigned to OAI and press Enter.
3. In the sub-menu, select **OAI**, and press Enter.

The selected port is now configured as the OAI port.

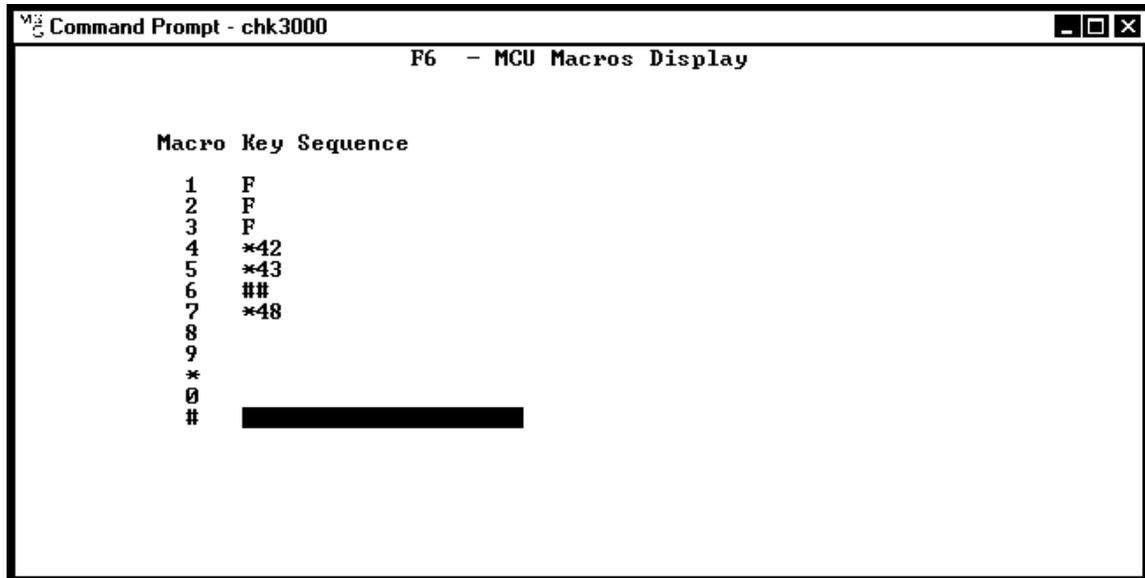
3.4 Connect the Application Server to the MCU

Using a standard RS-232 cable, connect the System Controller COM port configured for OAI to the OAI application server, PC, or modem that will be used to interface with the application.

3.5 Assign Function Key to OAI

To access or initiate the OAI application, the user presses FCN followed by an assigned number key (e.g. **FCN 9**) on the Wireless Telephone. Follow these steps to assign a function key to initiate or access the OAI application.

1. From the Operator's Console, select **MCU Macros Display** (F6). The following screen displays. The screen allows you to define macros for the digits 1-9, *, 0, and #.



2. Use the arrow keys or mouse to move to the desired entry, and press Enter.
3. To assign a function key to initiate the OAI application, enter **##555** as the macro key sequence. When the related function key is pressed, the OAI application will recognize the key sequence and initiate the appropriate OAI application. For example, in the illustration above, typing **##555** at the selected field next to the # macro will enable a Wireless Telephone to access the OAI function when **FCN #** is pressed.
4. When you have finished, select **SAVE** to save your entries.

3.6 Test Application

After setting up the OAI application, test the functionality of the Wireless Telephones and the functionality of the OAI application.

1. Place a call and test the features on each Wireless Telephone to be sure the system is working properly.
2. Test the application on each Wireless Telephone. Consult your application provider for specific test procedures.