



**DEPENDABLE EMERGENCY COMMUNICATIONS**

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A  
**HALMA**  
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COMPANY

# PR1150

Supervision System

## Functional Specifications

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## **1. OVERVIEW**

The PR1150 is a PC-based system designed for remote diagnostics, programming, and receiving calls from VPP's line of microprocessor-controller telephones. The PR1150 easily supervises an unlimited number of phones and provides the assurance that all of the equipment is constantly in prime working condition.

The configuration consists of a Windows PC equipped with a four-port industry-standard telephony board and Vpp's specialized software. Each of the ports can be connected to a telephone line through which calls can be made to – and received from – the telephones. The PR1150 can be connected to standard analog phone lines whether they be from a Central Office, a PBX or VPP's line of switch systems.

## **2. INSTALLATION**

The unit is shipped with the telephone interface board, modem, and software already installed and tested. Installation is simply a matter of unpacking the hardware and plugging everything in.

### **2.1. Computer**

VPP repacks the computer in its original cartons. To unpack and assemble the computer, follow the manufacturer's instructions included with the system.

### **2.2. Your Printer (Not Included with System)**

The system is configured with a default printer capable of printing the fonts used in the software's reports. If you are adding a printer to the system, you should change this default to match your printer.

### **2.3. Telephone Interface Board**

Unless you're planning to change the hardware configuration, you can skip this section.

The board is configured to use memory addresses and an interrupt request that will not interfere with the hardware configuration and the anticipated use of the machine.

Details about the board's hardware options are thoroughly documented in the board's installation manual, which is packed with the system.

### **2.4. Telephone Lines**

The telephone interface board has four RJ-11 female connectors (6 position, 4 contacts), one for each of the four channels. You can connect up to four telephone lines using a modular cord with an RJ-11 connector (6 position, 4 contacts).

Do not confuse the telephone interface board with the modem, which also has the RJ-11 connectors. The telephone interface board is marked with a Dialogic label.

## 2.5. The Modem

VPP ships each PR1150 system with an internal modem, which provides remote access for installation of software upgrades and for service. The modem has two RJ-11 connectors, one marked “line” and the other marked “phone”. If it becomes necessary for EMS to call your machine, plug a telephone line into the one marked “line”. Our technical support people will tell you how to run software that will answer the call.

## 2.6. The PR500 (Optional)

VPP ships certain PR1150 systems with an external Current loop detector called PR500. The PR500 is only used if you have the system setup to receive calls. It has sixteen RJ-11 connectors, four marked for the incoming phone “lines”, four marked for the 2 or 4-Line Phone and the last four marked for the Presidium DIO card. Follow the quick setup guide below to set up the system for a single line use. (For more details see the connection diagram in the Test Plan Documentation)

## 2.7. The 2 or 4-Line Phone (Optional)

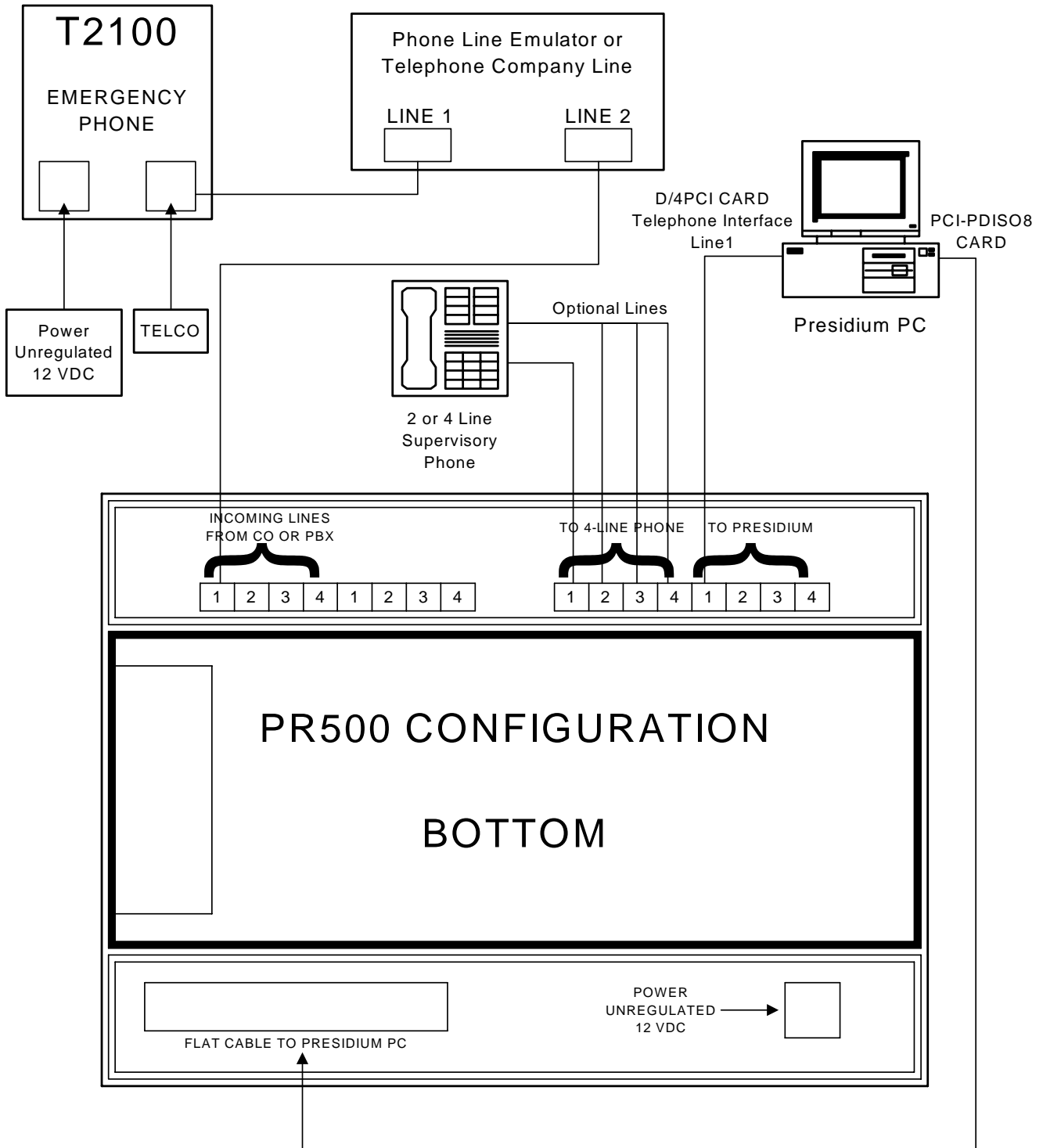
VPP ships a 2 or 4-Line phone with each PR1150 system using the PR500 . That phone connects to the PR500 unit in the RJ11 connectors marked 1, 2, 3 and 4. (If you only use 1 phone line connect Line 1 of that phone to line 1 of the PR500 in the RJ11 jack marked “To 4-Line Phone”) That phone could be used to answer an incoming call or access the phone line.

## 2.8. Quick Set-up Guide

- 2.8.1. Connect the flat ribbon cable from the PR500 connector marked “Flat Cable to Presidium” to the Presidium PC PCI-PDISO8 card in the back of the PC.
- 2.8.2. Connect a modular cord from the PR500 connector marked “To Presidium” line 1 to the Presidium PC D/4PCI Dialogic card Line 1 (Looking at the PC from the back, line 1 is on the right).
- 2.8.3. Connect a modular cord from Line 1 of the 2 or 4-Line phone to Line 1 from the PR500 connector marked “To 4-Line Phone”.
- 2.8.4. Connect a modular cord from Line 1 of the PR500 connector marked “Incoming Lines From Co or PBX” to a phone line or PBX switch.
- 2.8.5. Connect a modular cord from the T2100 Phone to a Phone line or PBX switch. (It is important the you use a separate line to connect the T2100 unit and it must be connected in a way that it can be accessed by the Presidium system)
- 2.8.6. Connect a 12Vdc/500mA Unregulated power supply to the J2 Connector of the T2100 unit.

2.8.7. Connect a 12Vdc/500mA Unregulated power supply to the PR500 Connector marked "Power Unregulated 12VDC".

## 2.9. PR1150 Connection Diagram



### **3. RUNNING THE PROGRAM**

Start the software by clicking the red telephone icon (Presidium/PR1150) on the desktop. Once the program has started, its main control panel will display a set of buttons you can click to trigger various actions.

The actions are of two basic types: bookkeeping activities, like telling the program about your phones, and action commands, which are the software activities that control programming your phones, running diagnostics, and receiving calls.

You can run several action commands at the same time, one for each telephone line your system supports. This means that if you have a lot of phones, you can divide up the work. If you have four telephone lines, for instance, you might reserve one for incoming calls, use two to run continuous diagnostics (assigning half of your phones to each), and have the fourth left over for programming new phones.

Another way to get the most out of your system is to run scheduled diagnostics. At a certain time of day (say, for instance, midnight), an action command will wake up automatically for each of those lines, and it will test a preassigned set of phones. At other times of the day, when the diagnostics are not running, you can use those same lines for programming or running diagnostics under operator control.

### **4. THE DATABASE**

A database is an organized collection of information, usually with relationships among units of information with different types. The PR1150 database, for example, contains a list of all the emergency phones that the system supports.

The “View/Edit” button on the control panel lets you examine and modify the database. It pops up a box containing three buttons which give you choice of working with “Telephones”, “Operators”, and “Call Dispositions”.

#### **4.1. Telephones**

This button displays a form which you can use to examine, and in some cases modify, the part of the database containing basic information about each emergency telephone, including its programmable options.

On the left is a list of the phones. When you select one of these by clicking it, its characteristics and options appear on the right. These differ from one phone model to the next, but are generally self-explanatory when viewed with reference to the phones’ own documentation. Some phones have too many options to fit on a single form, in which case a button takes you to another form containing additional information. The T2100, for example, displays a button labeled “Set telephone numbers and related options” for just this reason.

To add a new phone to the database, click the button labeled “Create a new entry”. The new entry will be as close as possible to a copy of the one that was displayed when you clicked the button, so it’s a good idea to begin by selecting a phone that is similar to the new one. This facility eases the drudgery of adding large numbers of phones.

Occasionally you will notice the words “Programming Required” on the form. This means that some programmable option has changed and hasn’t yet been sent to the phone. Once a phone record has been modified, “Programming Required” will appear until the phone in question has been successfully programmed.

The “Backup” button on the control panel makes copies of the database, and the “Restore” button reverts to the contents of one of these copies. It is a good idea to make copies periodically, preferably to a removable medium like a Zip disk. A particularly good time to do this is just before you make major changes. That way, if you mess things up, you can get back to where you started.

## **4.2. Operators and Call Dispositions**

These buttons allow you to examine and modify the parts of the database containing the selections that are presented to an operator who is handling an incoming emergency call.

## **5. REMOTE PROGRAMMING**

Select the “Program” button for the line you wish to use. A unit selection window will appear, which allows you to choose the phones to be programmed. Any phones that have not been programmed since you last changed any of their programmable fields in a database editing operation are preselected. Any phones which were not successfully programmed at the last programming pass are also preselected.

To select or deselect an individual phone, click the check box to the left of its identifier. The other buttons and options on the form are self-explanatory (You can also refer to the phone’s programming instructions for more details).

After you have selected the phones that you want programmed, click “Begin Programming”. Programming takes approximately forty-five seconds per phone.

## **6. TESTING**

### **6.1. Running Diagnostics on Command**

Select the “Test” button for the line you wish to use. A unit selection window will appear, which allows you to choose the phones to be tested. The phones that were last tested on this line are preselected.

To select or deselect an individual phone, click the check box to the left of its identifier. The other buttons and options on the form are self-explanatory.

After you have selected the phones that you want to test, click “Begin Testing”. A dialog box will pop up asking you if you want to “Run through the selected phones just once?” If you click “Yes”, the test will terminate after testing each phone. If you click “No”, the test will repeat over and over until you stop it by clicking the “Cancel” button on the Control Panel or the Line Display window.

### **6.2. Running Diagnostics Automatically**

Click the “Automatic Testing” button on the Control Panel. An “Automatic Testing Options” window will appear. The upper left corner displays an “On/Off” option. When “On” is selected, tests will run at the times selected on the right of the window. When “Off” is selected, the tests will not run, but you can still modify the options for later use.

The other options on the left side of the form control how the software “seizes” a line that is not in use when it’s time for an automatic test to run. You can tell it which line to use, or you can

allow it to select a line. You can also tell it whether it is allowed to use a line that has been selected for incoming calls.

When you are satisfied with your choices, click the button on the lower left. If automatic testing is turned off, this button will be labeled "Exit to main menu". If automatic testing is on, it will read "Continue". In the latter case, you will proceed to a unit selection window (See "Running Diagnostics on Command", above). The preselected phones will be the last ones selected for automatic tests.

The test will run each day at the time you have given, until automatic testing is explicitly cancelled. During the time the test is running, its line is not available for anything else, but whenever the test is idle, you may use the line for another function, such as immediate testing, programming, or receiving calls. If the line is taken by one of these at the time the scheduled test is supposed to start, the test will wait until the line is freed.

## **7. HANDLING INCOMING EMERGENCY CALLS**

The PR1150 can be used to log and assist with incoming calls. When the computer is used this way, it is connected to the phone line in parallel with the telephone used by the operator. The result is that the operator and computer are using two extensions.

When it detects a ring, the computer answers the call, identifies the phone making the call, displays a window with a flashing red button marked "Ringing", and plays a ringing sound through the system's speakers. It is important to let the system answer the call. If you answer on the first ring before the computer does, the system will not be able to identify the calling phone or log the call.

When the operator answers the call, the ringing sound stops, a green button marked "connected" is displayed and the operator can talk to the caller. After the call, the operator should select his or her name from the list on the screen (or type it in the box above the list) and select or type the disposition of the call, hitting the "Enter" button or clicking with the mouse.

Finally, the operator can hang up and the computer hangs up its extension. Since the computer and operator are on two extensions, the call will not actually end until the operator also hangs up.

The time and date of the call, the identification of the phone, and the information entered by the operator are stored in the database for subsequent reporting.

### **7.1. Error Messages**

The following errors may be reported:

- answered by a fax machine
- answered by an answering machine
- answered by voice
- busy for more than 10 minutes. A busy phone could simply be in use, so the diagnostic spends ten minutes retrying the call before it reports the condition.
- handset off hook. VPP's handset models report this error when no call is in progress but the handset has not been hung up. This can happen if someone drops the handset and walks away.
- hung up prematurely. This is reported if the phone hangs up in the middle of the test.

- incorrect model of telephone. Most likely, you have selected the wrong model number for this phone.
- intercept signal received. An intercept signal is a three-tone sequence usually followed by a recorded message, like “If you’d like to make a call, please hang up and try again”. It is an indication of an error detected by a telephone company central office, PBX, or some other telephone switch. It means that the call could not be placed, most likely because the “phone number” entry in the database is incorrect.
- invalid diagnostic response. The PR1150 has succeeded in reaching the phone, but the phone is not responding properly. Check to make sure that the phone’s database entry has the correct model number. If so, the phone is probably defective.
- neither a ring nor a Touch-Tone response detected. Most likely, the “phone number” entry for this phone is incorrect.
- no answer. A number of things can cause this error. The “phone number” entry in the database might be wrong, there may be no phone connected to the line you’re calling, the phone connected to the line might not be a VPP emergency phone, or something might be wrong with the line.
- no dial tone. Most likely, the PR1150 is not connected properly to its phone line.
- no ring. Most likely, something is wrong with the line you’re calling.
- no Touch Tone response after answer. Either the phone is defective, or the call has been answered by something other than a VPP emergency phone.
- non-volatile memory failure. The phone is defective.
- not programmed with the correct identifier. The identifier in the database does not match the one programmed into the phone. Check to make sure the database contains the identifier you want the phone to have, and then reprogram the phone.
- program code rejected. Check to make sure the database entry for this phone contains the correct model number. If so, the phone is probably defective.
- programming password rejected. The programming password in the database does not match the one programmed into the phone. Check to make sure the database contains the password you want the phone to have. If it does, and if you’re still getting this error, you’ll have to reprogram the phone manually. If you are unable to access the phone’s programming function because you don’t know its current password, VPP can help. Contact technical support.
- speaker/microphone test failure. This test will fail if the speaker or microphone are defective, but it will also fail if there is a lot of background noise (passing trains are frequent culprits) or if a stiff breeze is blowing onto the phone’s face. If this failure is reported frequently, the phone should be checked.
- Touch-Tone detection failure. The phone is defective.
- Touch-Tone generation failure. The phone is defective.

- wrong tone detected by speaker/microphone test. See “speaker/microphone test failure”, above.
- wrong Touch Tone response after answer. Either the phone is defective, or it is not a Vpp emergency telephone.

## **8. PRINTING REPORTS**

Each report that the system can generate is represented by a button on the bottom of the Control Panel. When you select a report, it appears first on the screen, along with a set of control buttons.

The buttons on the left navigate through the report's pages. You can move one page at a time or jump to the first or last page. The button showing rectangles of different sizes zooms between a full-page view convenient for navigation and a magnified view that is more readable. The next button sends the report to the system's default printer. The next two buttons export the report to disk files and email facilities using various formats. The “Close” button returns to the Control Panel.

Some reports have options that appear in dialog boxes before or after the reports are displayed. Be careful with the options that clear the database after the report is displayed. You may want to make a practice of printing hard copies and/or backing up the database before clearing the reports. You should also know that the “Test Runs” report is cleared along with the “Test Results” report.

## **9. SOFTWARE CONFIGURATION**

### **9.1. Dialogic Software**

The interface board is operated by means of a device driver loaded as a TSR (Terminate-and-Stay-Resident) program named D40DRV, that is located in the DIALOGIC directory. The TSR is loaded automatically by autoexec.bat.

The DIALOGIC directory also contains a handy diagnostic program, D40CHK, which is documented in the Dialogic manuals.

### **9.2. Database Files**

The database is stored in \\Vpp\1150\1150-0.mdb in Microsoft Access format.

## **10. HOW TO REACH EMS-VPP TECHNICAL SUPPORT**

We hope that the PR1150 system is easy enough to install and run that you won't need to call us, but EMS Technical Support can be reached at either (800) 527-9156 or (631) 864-3699.