



Supported Equipment Manual

For the FACTORYpoint PRO Device Manufactured by Intelligent Instrumentation

Copyright © 1996 - 2006 by Connect, Inc.

All rights reserved. This document may not be reproduced in full or in part, in any form, without prior written permission of Connect Inc., 1701 Quincy Avenue, Suites 5 & 6, Naperville, IL 60540.

Connect, Inc. makes no representation or warranties with respect to the contents of this document and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. Further, Connect, Inc. reserves the right to revise this publication and to make changes to it from time to time without obligation to notify any person or organization of such revision or changes.

Trademarks

PowerNet OpenAir™, OpenAir Linux™, OpenAir Windows™, OpenAir 400™, PowerNet Twin Client™, and PowerNet AirLinc™ are trademarks of Connect, Inc.

Other product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

Production

This manual was written, edited, and produced by:

Connect, Inc.
1701 Quincy Avenue,
Suites 5 & 6
Naperville, IL 60540
www.connectrf.com

Printed in the U.S.A.

Please let us know about any errors in this document at:

<http://207.241.78.223/isoexpert/calltrak.nsf/WebTracking?OpenForm>

Table of Contents

Chapter 1 • Introduction	1-1
Description.....	1-1
Picture.....	1-3
Setup Requirements.....	1-3
Accessories.....	1-4
BIOS.....	1-4
Chapter 2 • Terminal Setup	2-1
Downloading from the Web.....	2-1
Running Setup from a Download File	2-1
Installation.....	2-2
Running the Manager.....	2-4
Quick Start.....	2-5
Configuring the Manager.....	2-5
Downloading Files To Terminal.....	2-10
Cold Booting the Terminal.....	2-11
Starting a Telnet Session	2-11
Standard Setup.....	2-12
Setup Using Twin Client Manager.....	2-12
Terminal Setup Using Twin Client Menus	2-18
Authorizing PowerNet.....	2-20
Software Management.....	2-24
Auto-Configuration	2-24
Downloading Intelligent Instrumentation Files.....	2-29
Cold Booting the Terminal.....	2-30
Starting a Telnet Session	2-30
Manual Download of Configuration Files.....	2-31
Chapter 3 • Keypad Configuration.....	3-1
Keypad Figures.....	3-1
Keypad Table.....	3-4
Chapter 4 • Error Message Resolution Guide	4-1

This page is intentionally blank.

Chapter 1 • Introduction

Description

Features and Benefits

- Open architecture for low cost of ownership
 - AMD 486DX2-66 Processor
 - DOS operating system
 - 10BaseT Ethernet built-in
 - IEEE802.11 wireless Ethernet capable via standard PCMCIA card
- Industrial components and features
 - High quality
 - NEMA-4/IP66 case is unmatched in the industry
 - [High Mean Time Between Failure \(MTBF\)](#)
 - No moving parts
 - Drip-proof case
 - Large input power range
 - Extensive power management
- Barcoding and other AutoID support is built-in
 - 3 AutoID ports
 - undecoded barcode scanners
 - decoded barcode scanners
 - barcode wands
 - barcode slot readers
 - mag-stripe readers
- Two standard serial COM ports
 - COM1 and COM2 to attach to any serial device such as:
 - printers
 - additional AutoID readers
 - serial scales
- High-quality keyboard
 - QWERTY or Numeric/Function configuration
 - Large keys designed for gloved use
 - Tactile feedback
- Full-VGA capable via PC/104 ISA-bus card
- High-quality backlit LCD displays with choice of:
 - 4 line by 40 character
 - 2 line by 40 large character for long range/high visibility
- Digital input/output is available
- 6 optically-isolated digital inputs
 - Protected against electrical surges

- Sense switch opens and closes
- Sense gate, door positions
- Sense other on/off signals
- 2 relay digital outputs
 - 2 AMP rating
 - Activate slave relays
 - Start motors
 - Turn-on lights
 - Open door latches
- Large partner network
 - Many available systems
 - Many service offerings
 - Custom system development
 - Full geographic coverage

Hardware Specifications

- Physical - 35.5cm W x 24.6cm H x 6.6cm D (13.2"W x 9.7"H x 2.85"D)
- Weight - 3.3 Kg (7.4 lbs.)
- Processor - AMD 486DX2-66 Processor, 1 MB DRAM standard, expandable to 65 MB with standard SIMM RAM
- System - 100% Standard DOS
- Integral Display - Your choice of backlit LCD displays programmed via LPT1 - no special programmer kits or proprietary software required. Choose either the 4 x 40 display, or the 2 x 40 display with large ½ inch characters
- Display Modes - Dual display-separately controlled VGA (optional) and LCD mapped mode - LCD displays a user specified 2 x 40 (or 4 x 40) display window
- Keyboard - Sealed rubber actuators with steel dome switches
- Keyboard Configuration - 50 key positions, sequential alphanumeric
- Case Design - Third party tested to NEMA4/IP66 hosedown test (exceeds IP66)
- Temperature - Operating and storage: 0°C to 50°C (32°F to 122°F)
- Power Requirements - 18-28V AC or 9-30V DC power, 1-2 amps @ 5V depending on options. Includes advanced power management features
- Networks Supported - TCP/IP, Novell Netware 3.x/4.x, Artisoft LANtastic, Windows NT, Microsoft LAN Manager
- Ethernet - Built in standard 10Base-T with RJ-45 connection internal
- Automatic ID Interfaces - Wand emulation (front bottom), laser port - direct decode (front bottom), 1 slot reader connection (internal), 2 serial COM ports (1 internal, 1 front bottom)
- Symbologies Decoded - Code 3 of 9, (Mod 43 and full ASCII), Interleaved 2 of 5, Code 128, UPC/EAN/JAN, codabar
- Other Connectors - External speaker/beeper, 1 PS2 mouse port (internal), 1 PS2 keyboard input (internal), general-purpose PC-104 slot (internal)
- PCMCIA Card Slots - 2 general purpose slots, 1 type II and 1 type III (one required for boot)
- PC/104 Card Slot - Add one or more PC/104 cards for special/unique application requirements

Picture



Setup Requirements

Twin Client terminal emulation client-side software comes pre-loaded and ready to run out-of-the-box when you purchase the appropriate PCMCIA card for the LANpoint PRO (or FACTORYpoint PRO, as appropriate). Simply install the PCMCIA card in the unit, power it up, and configure the appropriate TCP/IP addresses. PCMCIA card part numbers are:

- LPSR-VTHPTE-P - pre-loaded VT/HP terminal emulation
- LPSR-5250TE-P - pre-loaded 5250 terminal emulation
- LPSR-3270TE-P - pre-loaded 3270 terminal emulation

Installation of PowerNet Twin Client advanced configuration software requires the following:

- A Pentium-class processor
- 32 MB of RAM
- 10 MB of free hard disk space available
- Microsoft Windows 95, 98, ME, XP, or NT/2000 operating system

Accessories

The following accessories are available for the FACTORYpoint PRO:

- External beeper (LPA002)
- Stainless steel industrial enclosure mounting box (LPA006)
- Slot reader bracket for TM8447 stand, right or left side, or top (LPA007)
- Slot reader mounting kit for TMN87 enclosure (LPA008)
- PC-104 VGA board (LPA024)
- FACTORYpoint PRO manual (LPA043)
- 24V Power adapter, 90-120V AC (LPP002)
- 24V Power adapter, 220V AC (LPP003)
- Battery pack, AA-style, 0.5 Amp-hr (TMA017)
- Industrial flush mounting kit (TM8448)
- Adjustable tilt wall/desk stand (TM8447)
- Steel industrial enclosure box (TMN87)

Contact Intelligent Instrumentation at www.instrument.com for additional accessories.

BIOS

Version of the BIOS

The version of BIOS on an Intelligent Instrumentation FACTORYpoint PRO terminal is 2.5.

Finding the Version of the BIOS

The version of BIOS will appear on the terminal screen when the terminal is rebooted. For rebooting instructions, see *Cold Booting the Terminal* in Chapter 2.

Chapter 2 • Terminal Setup

Downloading from the Web

The PowerNet Twin Client software package can be downloaded from the Connect web site at <http://www.connectrf.com>. Click on *Partner Services* and then click on *Software Downloads*. Select the file named *PowerNet Twin Client for Intelligent Instrumentation*.

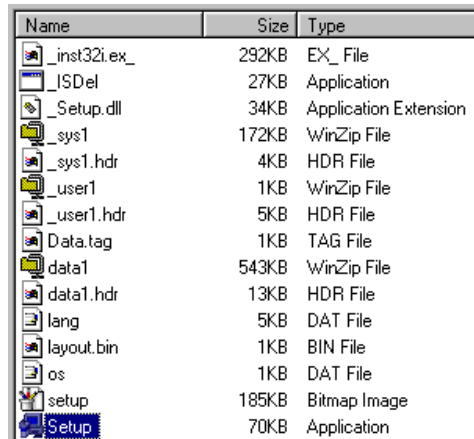
Running Setup from a Download File

The downloaded file is a compressed archive. After extraction using a utility such as *WinZip* or *PKWARE*, folders are created on the hard disk as shown in the following figure.



Name	Size	Type
Disk1		File Folder
disk2		File Folder
disk3		File Folder
disk4		File Folder

Click on the **Disk1** folder to view the files as shown in the following figure.

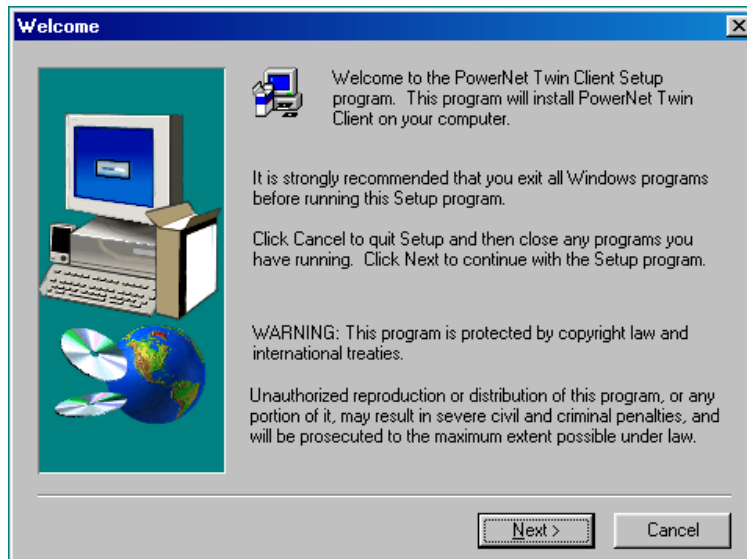


Name	Size	Type
inst32i.ex	292KB	EX_ File
_ISDel	27KB	Application
_Setup.dll	34KB	Application Extension
_sys1	172KB	WinZip File
_sys1.hdr	4KB	HDR File
_user1	1KB	WinZip File
_user1.hdr	5KB	HDR File
Data.tag	1KB	TAG File
data1	543KB	WinZip File
data1.hdr	13KB	HDR File
lang	5KB	DAT File
layout.bin	1KB	BIN File
os	1KB	DAT File
setup	185KB	Bitmap Image
Setup	70KB	Application

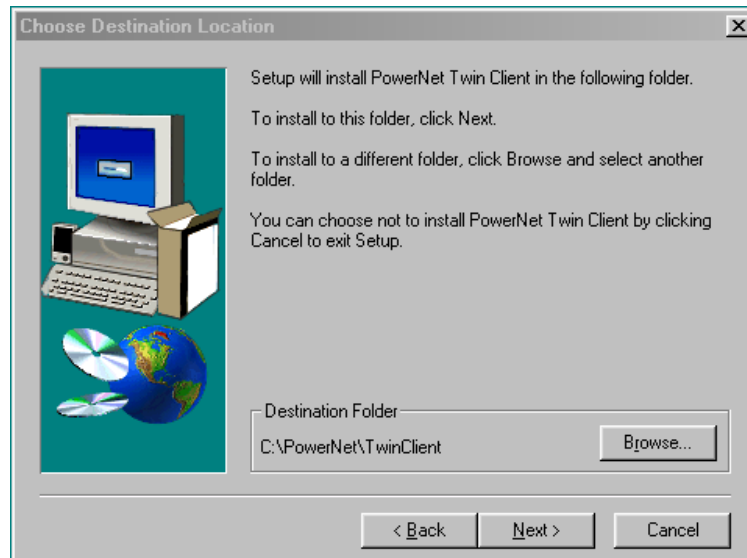
Click on the **Setup** application and proceed to the following section entitled *Installation* for further instructions.

Installation

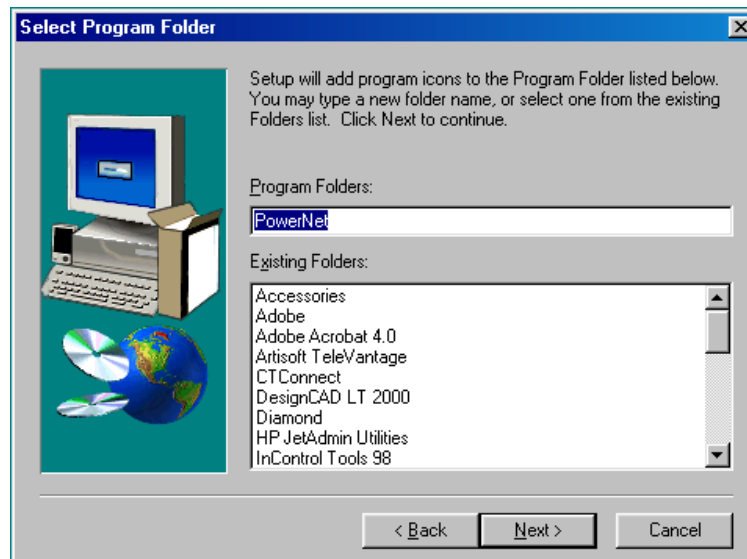
The InstallShield wizard runs and presents the following screen.



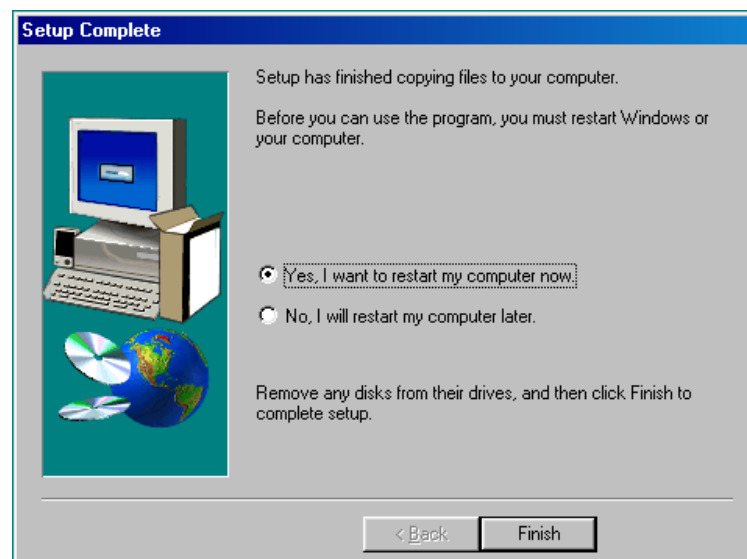
Click on **N**ext to begin the installation process.



To change the default Destination Location, click on **B**rowse and select a location. Then click on **N**ext.



The default folder is **PowerNet**. This default may be changed either by selecting an existing program group or by typing in a new name at the prompt. Then click on **Next**.



When the installation is complete, reboot the system to initialize the Twin Client software.

- a. To reboot the system immediately, click on **Finish**.
- b. To reboot later, click on the option to restart the computer later, and then click on **Finish**.

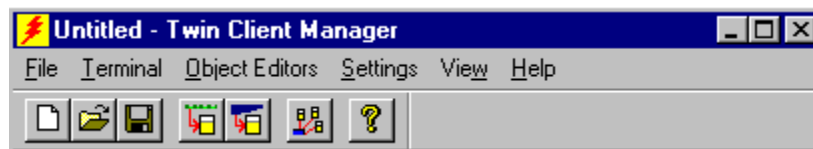
Running the Manager

The PowerNet Twin Client Manager is the utility that manages the terminal software and configurations.

Select **Start, Programs, PowerNet, and Twin Client Manager**. The PowerNet Twin Client Manager screen appears as shown below. This is the administrator's main screen. All functions are accessed from its menu bar, toolbar, and tabs.








Menu Bar

The menu bar provides access to the functions used to configure the terminals and manage their software.



Toolbar

Under the menu bar, the toolbar provides shortcuts to major features. The toolbar can be turned on or off by changing the Toolbar parameter found on the **View** menu. The shortcuts available from the toolbar are as follows:

-  Create a new terminal configuration.
-  Open an existing terminal configuration.
-  Save the current terminal configuration.
-  Download the configuration to the terminal.
-  Download software to the terminal.
-  Configure terminals automatically over the wireless network.
-  View the PowerNet Twin Client Manager version.

The PowerNet Twin Client Manager is now successfully installed and ready for use. *Quick Start* provides detailed instructions for quickly configuring the terminal.

Quick Start

Quick Start describes how to prepare the Twin Client Manager and the Intelligent Instrumentation terminal for a Telnet session with the host. Following an initial setup procedure, the terminal software and configuration are managed automatically, over the wireless network.

Configuring the Manager

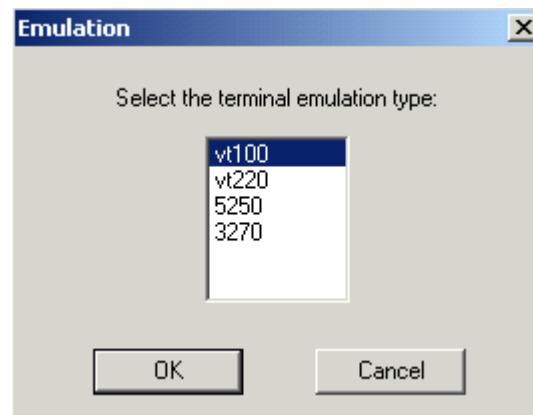
The first step is to configure the Twin Client Manager to meet site-specific requirements, and then prepare it for the automatic management of the terminal software and IP addresses. This simple procedure will require only a few minutes to complete.

Setting the Emulation

Click on **Start**, **Programs**, **PowerNet**, and **Twin Client Manager**. Select the **Settings** menu, as shown below.



Click on **Emulation**, select the desired emulation, and then click on **OK**.

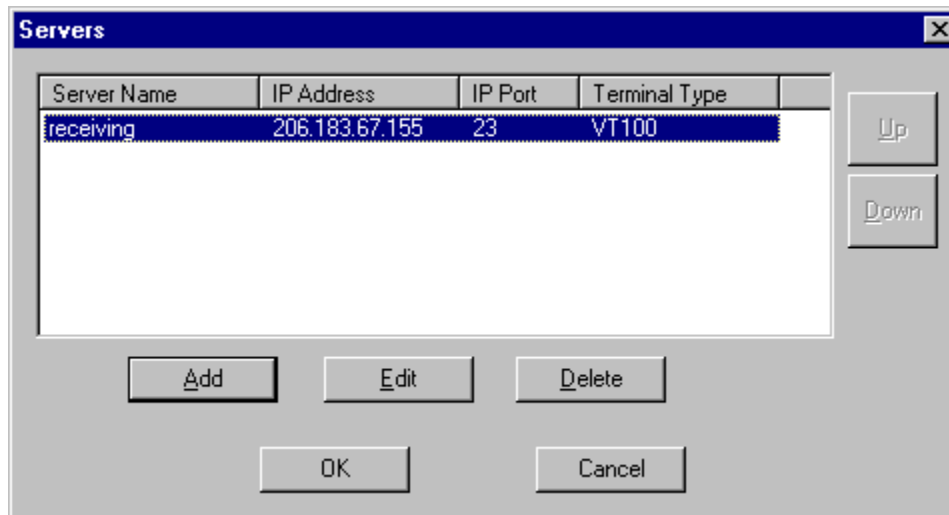


Setting the Servers

The Servers are the Telnet host systems the terminals will access.



To set these addresses from the **Settings** menu, click on **Servers** and then click on **Add**. Enter the name of each server, its IP address and IP port (normally 23 for Telnet servers), and emulation type. Then click on **OK**.



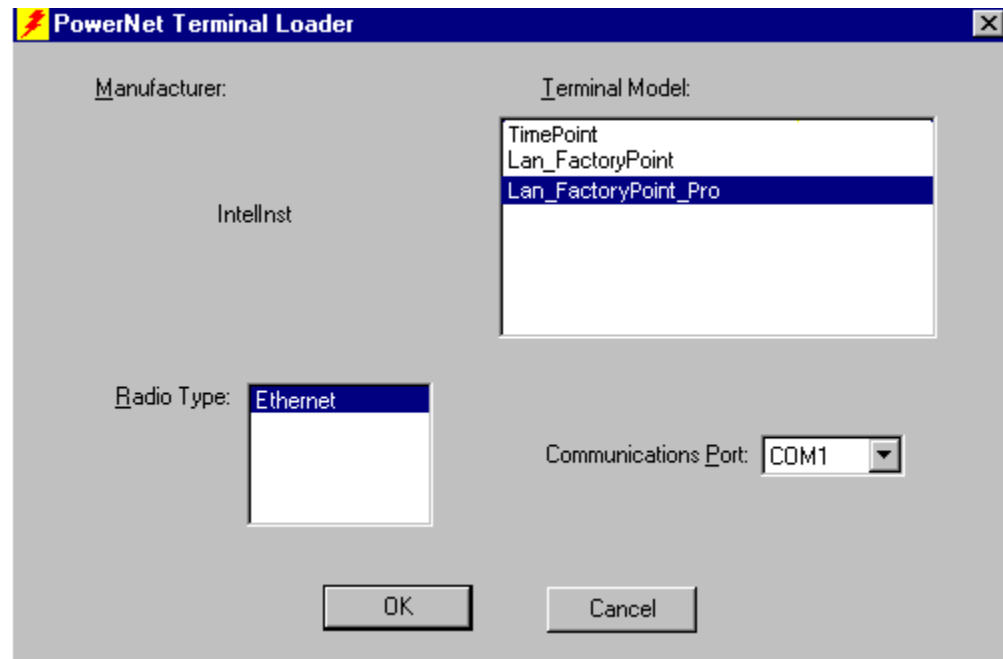
Repeat this step for each Telnet server the terminals are required to access. If an error is made in the name, IP address, IP port number, or terminal emulation type, click on the line that is in error and then click on the **Edit** button to make the corrections.

Setting Terminal Model

To select a specific Intelligent Instrumentation terminal model, click on the **Options** menu as shown.



Select the correct terminal model and radio type from the Lists below. Select Lan_FactoryPoint_Pro for the FACTORYpoint PRO terminal.

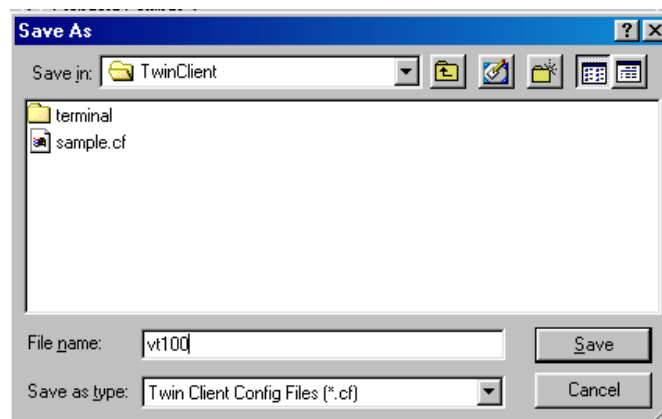


Saving the Configuration

Click on **File** and **Save As**. Enter a name for this configuration.

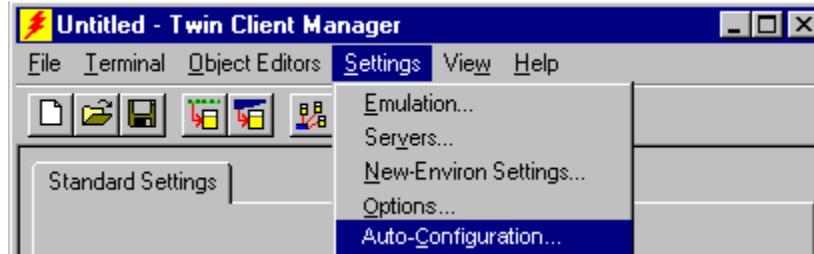


For the purposes of this example, the name is vt100.



Setting Auto-Configuration

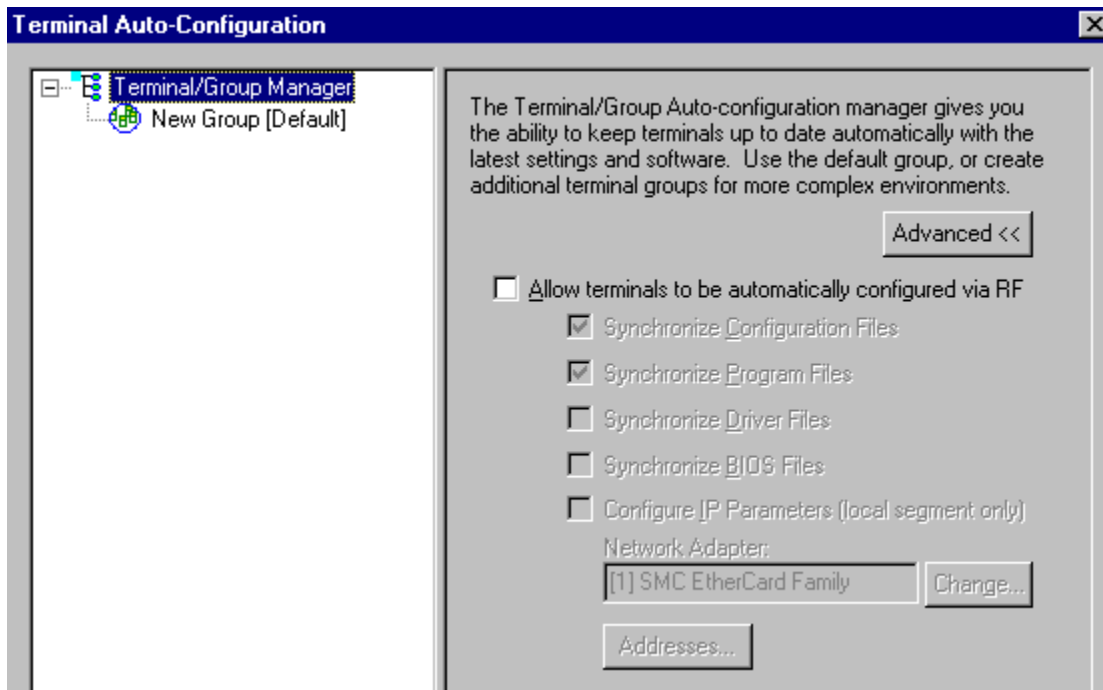
The configuration download and IP address assignment for each terminal will take place automatically by setting the Auto-Configuration options.



Click on the **Auto-Configuration** option in the **Settings** menu.

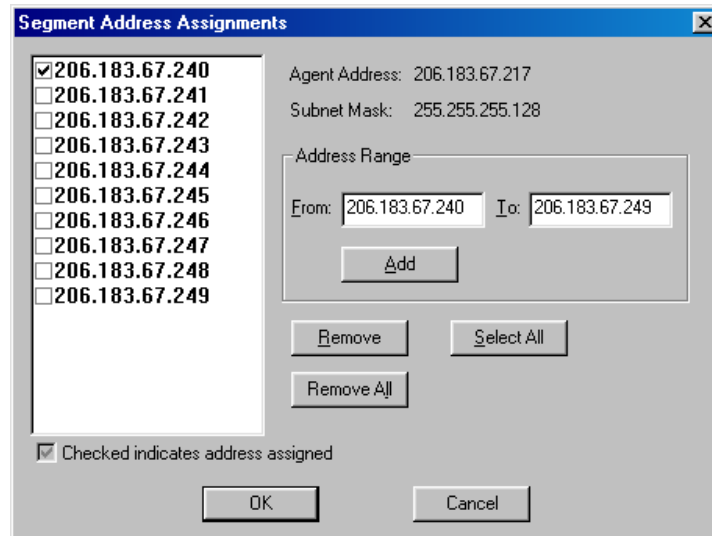
Note: If the Auto-Configuration window does not display the options, click on the **Advanced<<** button.

If multiple network adapters are installed on the PC, ensure that the desired network adapter is selected. The adapter selection can be changed by clicking on the **Change** button.

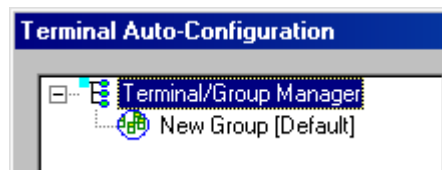


This powerful software management tool is described in detail in *Auto-Configuration*. For now, it is sufficient simply to use it for assignment of the initial terminal configuration and IP address, both of which can be easily changed later. Ensure that all of the check boxes are checked as shown above.

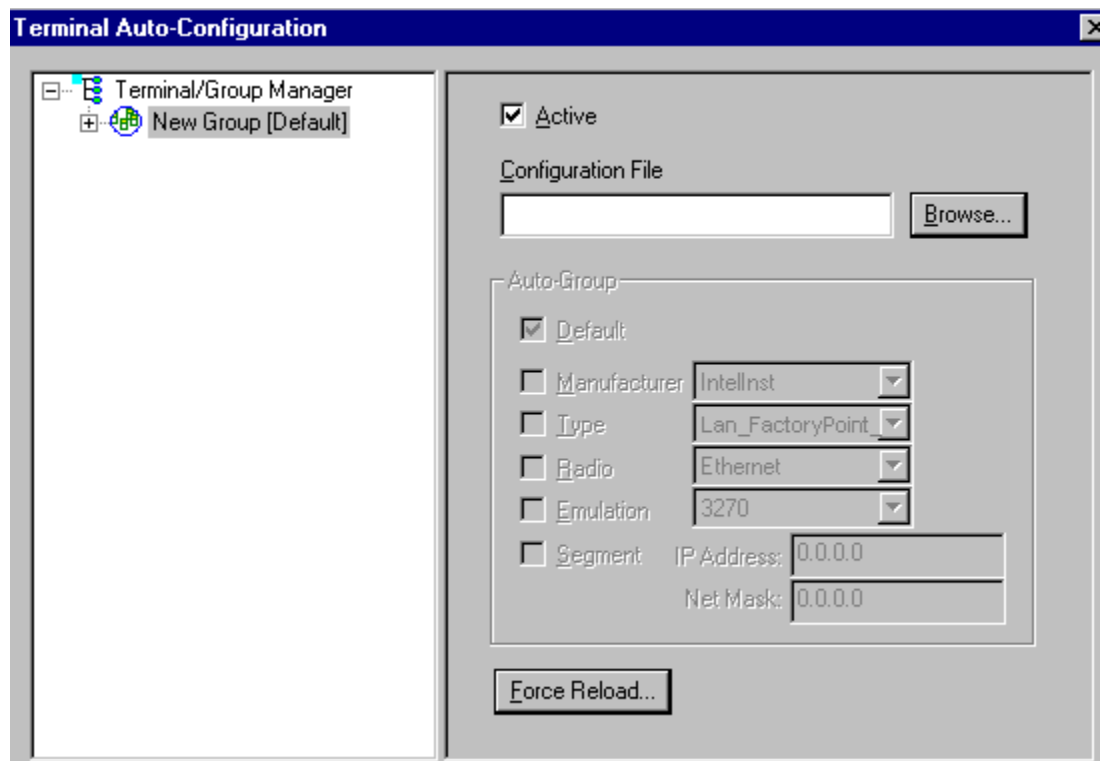
To assign terminal IP addresses automatically over the wireless network, check all of the boxes as shown above. Then click on the **Addresses** button and enter the desired range in the **From** and **To** boxes as shown in the following figure.



After setting the address range, click on **OK** to return to the Auto-Configuration screen and then click on the box next to **Terminal/Group Manager**.



The display expands to show the default terminal group. Next, click on the **New Group** icon and use the **Browse** button to select the configuration file saved earlier.



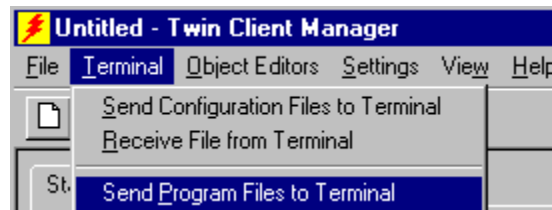
Check the **Active** box, and the system is now configured to automatically download IP addresses, software, and configuration files to the terminals. Click on the box in the upper right corner to return to the main menu.

Note: The software does not need to be authorized now. It can be authorized later, after a Telnet session has been established. The procedure is described in *Standard Setup* section entitled *Authorizing PowerNet*.

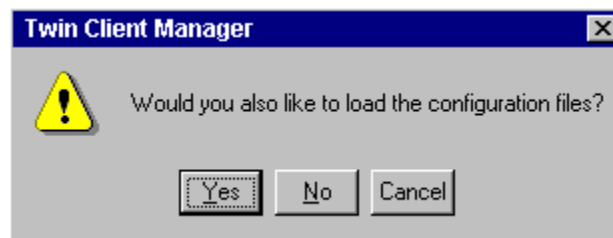
Downloading Files To Terminal

Twin Client program and configuration files are installed on the terminal by copying them to the terminal's SRAM card. You will need to use the DOS command or Windows Explorer to copy the files from the C:\PowerNet\TwinClient\terminal\IntellInst\download folder to the SRAM card, and install the SRAM card into the terminal.

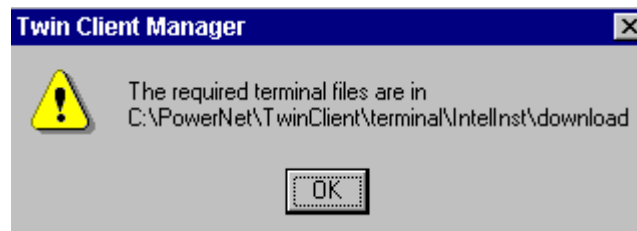
Click on the **Send Program Files to Terminal** menu option.



At the prompt, choose **Yes**.



The following screen appears.



Now use Windows Explorer or the DOS command prompt to copy the files located in the directory above to the SRAM card. Then, install the SRAM card in the terminal. Cold boot the terminal according to the following section. The Twin Client Manager will then automatically manage the terminal software and configuration.

See your Intelligent Instrumentation documentation for instructions on copying the necessary files to the download folder. After downloading, Twin Client will run when you reboot the terminal by powering it off then on.

Cold Booting the Terminal

At any time it is necessary to update the terminal software and/or configuration, the terminal must be cold-booted. To cold boot the terminal, simply turn the power Off, wait 10 seconds, then turn the power On.

A successful wireless connection is indicated by the display of the Twin Client main menu shown below.

```
Twin Client
© 1991-2006, Connect, Inc.

Keypress to Continue
```

Note: The date of 2006 is updated on the terminal at the time of a new release.

The terminal is now ready to establish a Telnet session with the host system.

Starting a Telnet Session

At the Twin Client main menu on the terminal, press any key to establish the connection. Until the terminal has been authorized, the following screen is displayed.

```
RECOVERABLE ERROR
Terminal not
Authorized for
Twin Client

Keypress to Continue
```

It is not necessary to authorize the terminal at this time, so press any key to continue. The terminal will establish a connection with the host system and start emulation. If the terminal fails to connect to the host, refer to the following table for the possible causes and the related corrective actions.

Failure Cause	Corrective Action
Incorrect Host IP address	Correct the Host List address on the terminal. Refer to the <i>Standard Setup</i> sub-section <i>Terminal Setup Using Twin Client Menus</i> for instructions.
Incorrect netmask value	Access Radio Setup menu and correct the netmask value. Refer to <i>Terminal Setup Using Twin Client Menus</i> for instructions.

After a Telnet session has been successfully established, the terminal will remain in session for a maximum of 30 minutes at a time until it has been authorized. Once authorized, there is no software restriction on the session time. The instructions for authorizing the terminal are presented in *Authorizing PowerNet*.

Standard Setup

The default terminal setup is sufficient for most installations. However, to meet site-specific requirements, it may be necessary to customize terminal operation. The standard setup options simplify this process and can be modified by the following methods:

- Using the Twin Client Manager.
- Using the Twin Client terminal menu system.

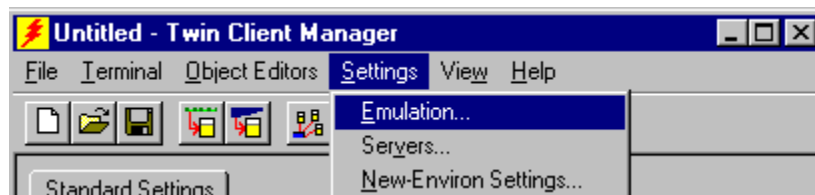
Standard Setup describes how to use the Twin Client Manager and the terminal menu systems to set up the terminal. Also described are the methods for authorizing the terminal software.

Setup Using Twin Client Manager

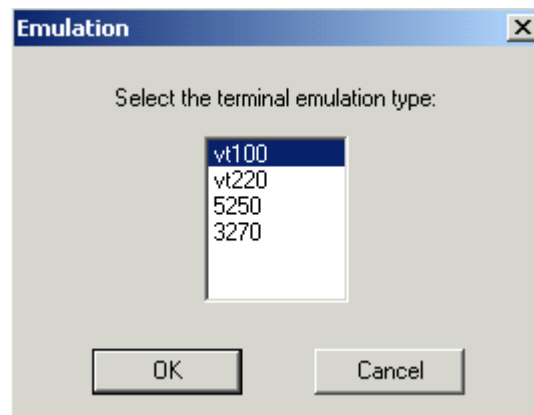
The Twin Client Manager provides a **Standard Settings** tab for automatic setup of the terminals. The options within this tab vary according to the emulation selected, each of which is described below.

VT Settings

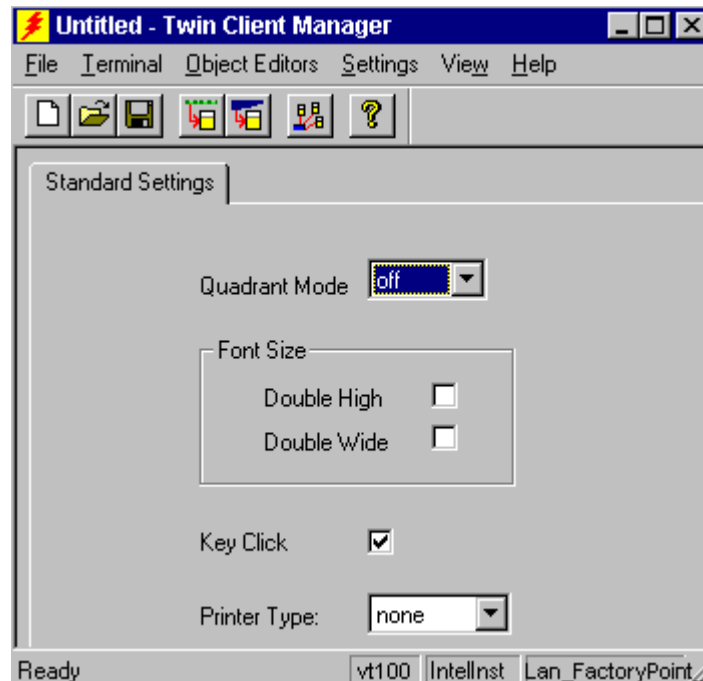
Select the VT emulation setup by clicking on the **S**ettings menu and then the **E**mulation menu, as shown below.



Then click on the **vt100** or **vt220** selection, as shown below.



Click on **OK** after the selection is made, and return to the main Twin Client Manager menu. The standard settings tab will now reflect the settings for VT emulation.



Quadrant Mode

The scrolling list option defines the rules by which the terminal display is positioned in the larger host display. As defined by Twin Client, quadrants are fixed position “windows” in the host display, and the terminal display is located on whatever quadrant contains the current cursor position.

Off disables quadrant processing and Twin Client simply centers the current host input field in the terminal display.

On enables quadrant processing. However, input fields that cross quadrant boundaries result in a shift to the left in order to locate as much of the current input field on the terminal display.

Soft always positions on a quadrant boundary regardless of input field boundaries. Viewing keys are enabled.

Hard is the same as **Soft** except the viewing keys are disabled.

Lock locks the terminal display origin (upper left corner) to fixed row and column (x,y) coordinates in the host display. The coordinates are zero-based.

Font Size

These check boxes enable (checked) or disable (unchecked) the display of characters in double high and double wide font.

Key Click

This check box enables (checked) or disables (unchecked) audible key clicks from the terminal. Default is on (checked).

Printer Type

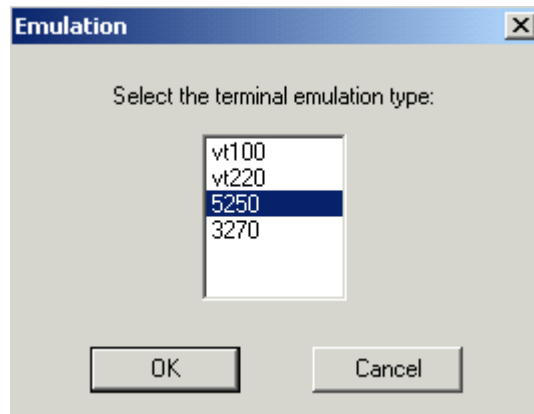
This scrolling list selects the attached printer type. The default value is **none**, indicating no printer is attached.

5250 Settings

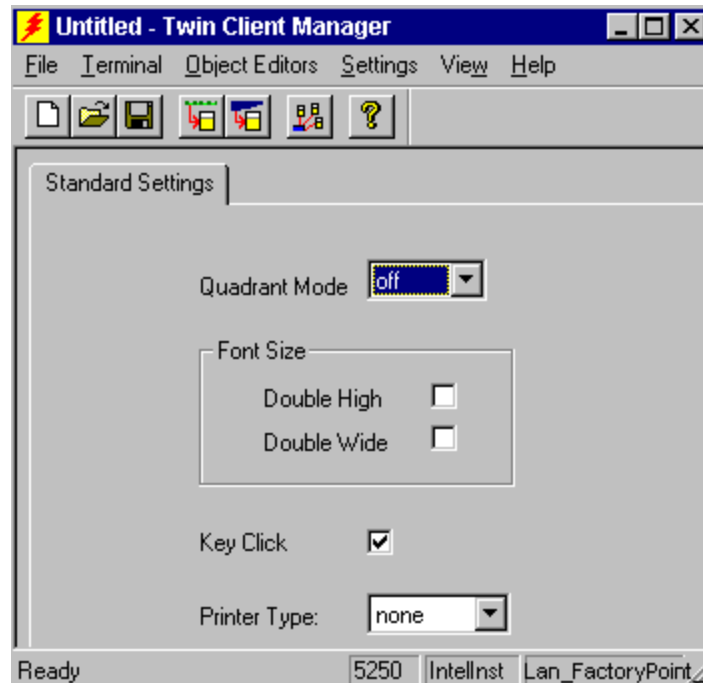
Select the 5250 emulation setup by clicking on the **S**ettings menu and then the **E**mulation menu, as shown below.



Then click on the **5250** selection, as shown below.



Click on **OK** after the selection is made, and return to the main Twin Client Manager menu. The standard settings tab will now reflect the settings for 5250 emulation.



Quadrant Mode

The scrolling list option defines the rules by which the terminal display is positioned in the larger host display. As defined by Twin Client, quadrants are fixed position “windows” in the host display, and the terminal display is located on whatever quadrant contains the current cursor position.

Off disables quadrant processing and Twin Client simply centers the current host input field in the terminal display.

On enables quadrant processing. However, input fields that cross quadrant boundaries result in a shift to the left in order to locate as much of the current input field on the terminal display.

Soft always positions on a quadrant boundary regardless of input field boundaries. Viewing keys are enabled.

Hard is the same as **Soft** except the viewing keys are disabled.

Lock locks the terminal display origin (upper left corner) to fixed row and column (x,y) coordinates in the host display. The coordinates are zero-based.

Font Size

These check boxes enable (checked) or disable (unchecked) the display of characters in double high and double wide font.

Key Click

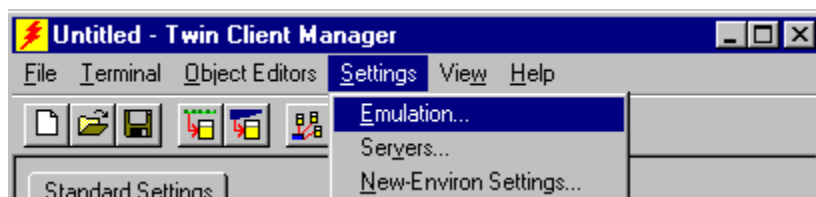
This check box enables (checked) or disables (unchecked) audible key clicks from the terminal. Default is on (checked).

Printer Type

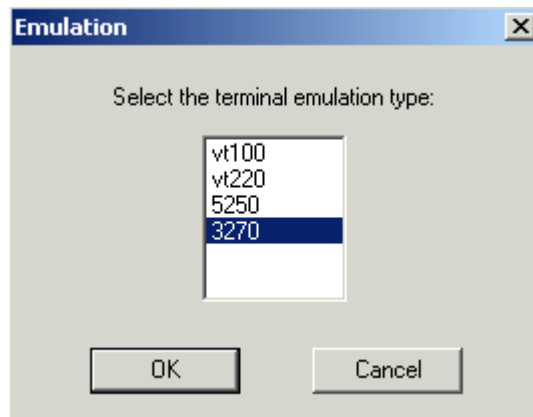
This scrolling list selects the attached printer type. The default value is **none**, indicating no printer is attached.

3270 Settings

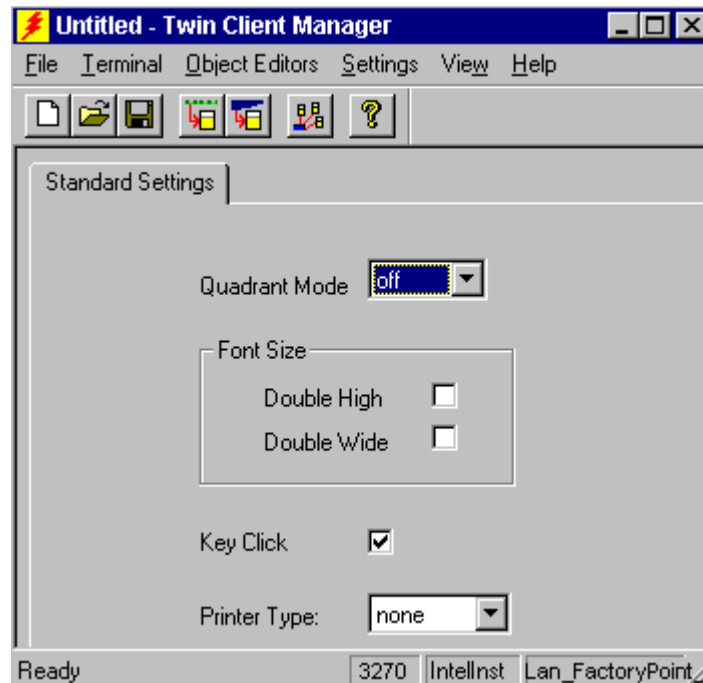
Select the 3270 emulation setup by clicking on the **S**ettings menu and then the **E**mulation menu, as shown below.



Then click on the **3270** selection, as shown below.



Click on **OK** after the selection is made, and return to the main Twin Client Manager menu. The standard settings tab will now reflect the settings for 3270 emulation.



Quadrant Mode

The scrolling list option defines the rules by which the terminal display is positioned in the larger host display. As defined by Twin Client, quadrants are fixed position “windows” in the host display, and the terminal display is located on whatever quadrant contains the current cursor position.

Off disables quadrant processing and Twin Client simply centers the current host input field in the terminal display.

On enables quadrant processing. However, input fields that cross quadrant boundaries result in a shift to the left in order to locate as much of the current input field on the terminal display.

Soft always positions on a quadrant boundary regardless of input field boundaries. Viewing keys are enabled.

Hard is the same as **Soft** except the viewing keys are disabled.

Lock locks the terminal display origin (upper left corner) to fixed row and column (x,y) coordinates in the host display. The coordinates are zero-based.

Font Size

These check boxes enable (checked) or disable (unchecked) the display of characters in double high and double wide font.

Key Click

This check box enables (checked) or disables (unchecked) audible key clicks from the terminal. Default is on (checked).

Printer Type

This scrolling list selects the attached printer type. The default value is **none**, indicating no printer is attached.

Terminal Setup Using Twin Client Menus

For compatibility with other PowerNet products, the PowerNet Twin Client for Intelligent Instrumentation also supports the standard Twin Client configuration menu system on the terminal. This menu system is accessed by pressing uppercase C at the Twin Client main menu shown below.

```
Twin Client
© 1991-2006, Connect, Inc.

Keypress to Continue
```

The following menu is displayed.

```
Edit Menu Options
Edit Mobile Unit IP
Edit Server/Host IPs
Edit Radio Option
Edit License Key
Run Site Survey
Switch Client Modes
Run Client Emulator
Exit to OS
```

Use the **Up-Arrow** and **Down-Arrow** keys to navigate the menu, and press **Enter** to select the highlighted option. Each menu option is described below.

Edit Mobile Unit IP

The IP list contains the terminal IP address, the Subnet Mask and the Router IP address. Enter the appropriate address. Select **<F3>** to save and/or **<F7>** to Quit, as shown below.

```
IP 206.232.71.38
SN 255.255.255.0
RT 206.232.71.1

<F3> Save <F7> Quit
```

Edit Server/ Host IPs

If the host IP address(es) were not pre-configured as described in the *Setting the Servers* section of *Configuring the Manager*, or if you wish to change those settings using the terminal menus, select this option and enter up to four Host IP addresses as required.

```
Host 0
IP 206.183.67.155
Port 23__
<F3> Save <F7> Quit
```

Press **F3** to save the configurations.

Edit Radio Option

This function acts as a password to join the radio network. Terminals associating with an Access Point must supply a matching value, determined by their configurations, or their association requests will be ignored.

```
ID tsunami_____
```

```
<F3> Save <F7> Quit
```

Edit License Key

The client software can be authorized automatically, as described in the next section. This menu option permits authorization of each terminal manually. Select this option to obtain the terminal's Identification Code, which is then used to obtain the Authorization code from the Connect web site as described in *Authorizing PowerNet*.

The 12-digit value displayed at the top of the terminal screen is the Identification Code for the terminal.

```
00A0F826E614
Authorization
_____
not authorized
<F3> Save <F7> Quit
```

Type the Authorization code into the field as it appears on the web site. Punctuation characters, such as the hyphen (-), are required. Press **F3** to save the Authorization code.

Run Site Survey

This option (a feature of Spectrum 1) is applicable to Release 5.0 and may be obsolete for your terminal.

Switch Client Modes

The PowerNet Twin Client normally operates in "Telnet" mode, which provides direct connection to Telnet hosts. It can also operate in "Server" mode, through a PowerNet

OpenAir server. Select this menu option to switch between Server and Telnet modes of operation. Note that the host socket address for the PowerNet OpenAir servers is 1800, which must also be changed in the **Edit Server/Host IPs** menu described above.

Run Client Emulator

After all desired changes have been made, select this option to return to the Twin Client main menu. Then press any key to establish the Telnet session and begin emulation. Refer to the *Quick Start* sub-section, *Starting a Telnet Session*, for further instructions.

Authorizing PowerNet

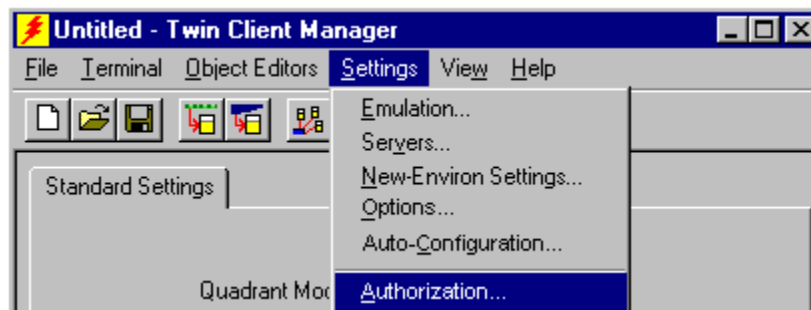
Each PowerNet Twin Client will run for 30 minutes at a time without authorization. Uninterrupted operation for a production environment is the result of authorizing the software. Authorization codes are obtained from the Connect web site at <http://www.connectrf.com> on the **Partner Services** page. Click on the **Generate Authorization** icon at the top of the page.

Automatic Authorization

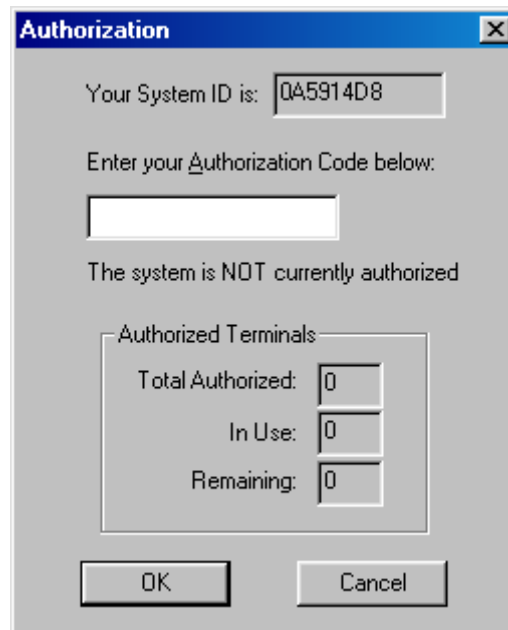
The Twin Client Manager can automatically authorize the terminal over the wireless network if the following requirements are met:

- A PC running Twin Client Manager is connected to the wire LAN segment with at least one access point within range of the terminal.
- The **System ID** of the PC on which Twin Client Manager is installed has been used to obtain a site license Authorization code from the Connect web site.

To obtain the System ID of the Twin Client Manager, click on the **A**uthorization option in the **S**ettings menu, as shown below.



The Authorization window is displayed as shown below.



The **System ID** (in this case, 0A5914D8) is the value that is entered as the **Identification Code** on the Connect web site authorization page.

Note: In the case of **individual licensing for single terminals**, all punctuation characters and spaces will be filtered out of the System ID before the code is generated. In the case of **site licensing for multiple terminals**, punctuation characters and spaces are **not** filtered out of the System ID before the code is generated.

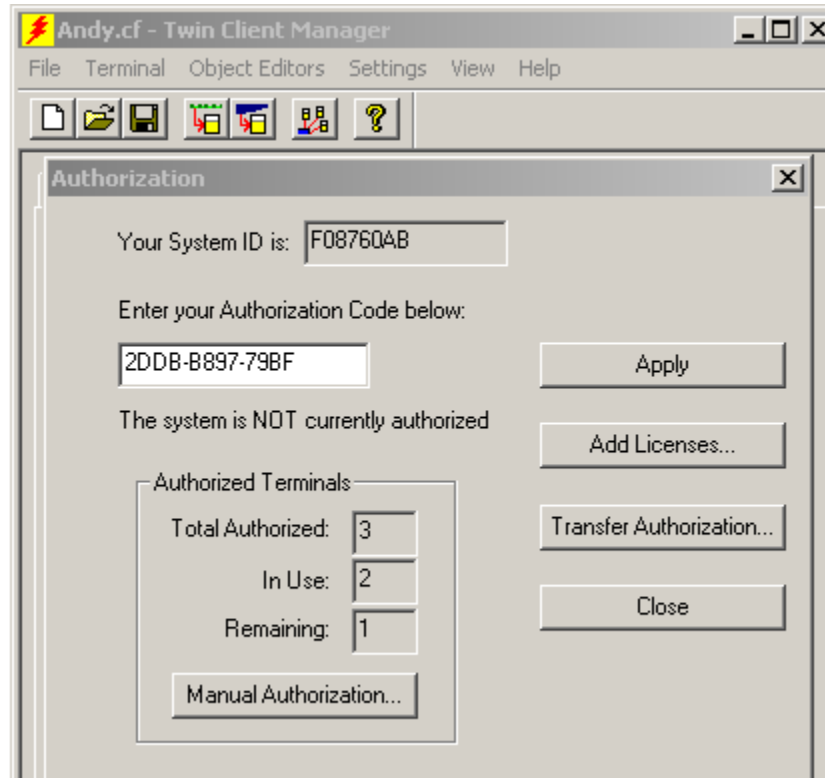
Manual Authorization

The procedure for manually setting the Authorization code on the terminal is described in the section entitled *Edit License Key in Terminal Setup Using Twin Client Menus* above.

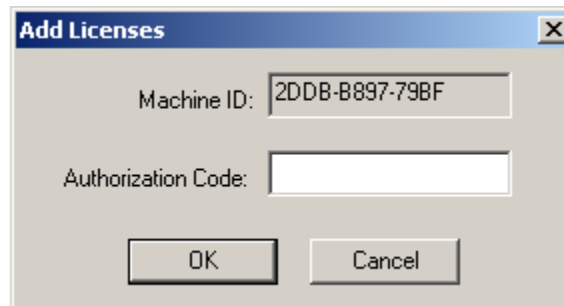
Adding Licenses

The Add Licenses feature is used when adding additional licenses to an already site licensed Twin Client Manager. (i.e. Twin Client Manager is licensed for 10, and the customer purchases another 10 licenses to make a total of 20.)

From Twin Client Manager, choose **Authorization** from under the **Settings** menu. Click on the **Add Licenses** button.



A pop-up box appears with the Machine ID and a space for the additional license's Authorization code.



Use the Machine ID in the pop-up box instead of the original Machine ID to get your Authorization code.

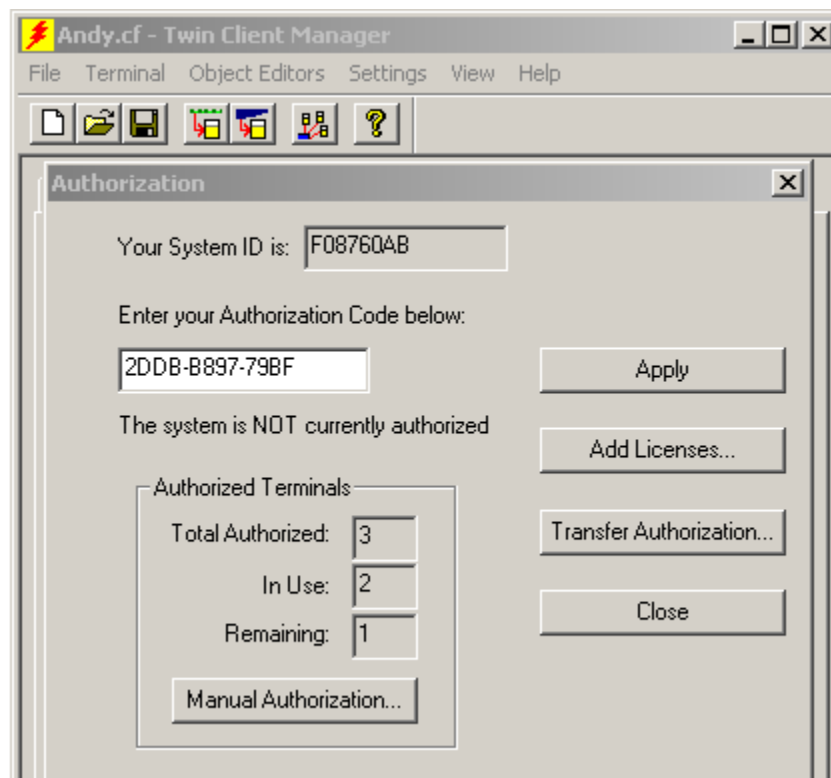
If adding users, click on the **Add Licenses** button before generating the Authorization code to get the most current Machine ID.

Transferring Licenses

The Transfer Licenses feature is used when moving a site license from one PC to another. After Twin Client Manager is installed on a new PC, you will need the System/Machine ID for it.

From Twin Client Manager, select **Authorization** from under the **Settings** menu.

Click on the **Transfer Authorization** button on the old PC. You will be asked for the new System ID. Enter this new System ID. It will generate an Authorization code for the new PC's Twin Client Manager.



Note: This feature only works if there are licenses remaining on the old PC.

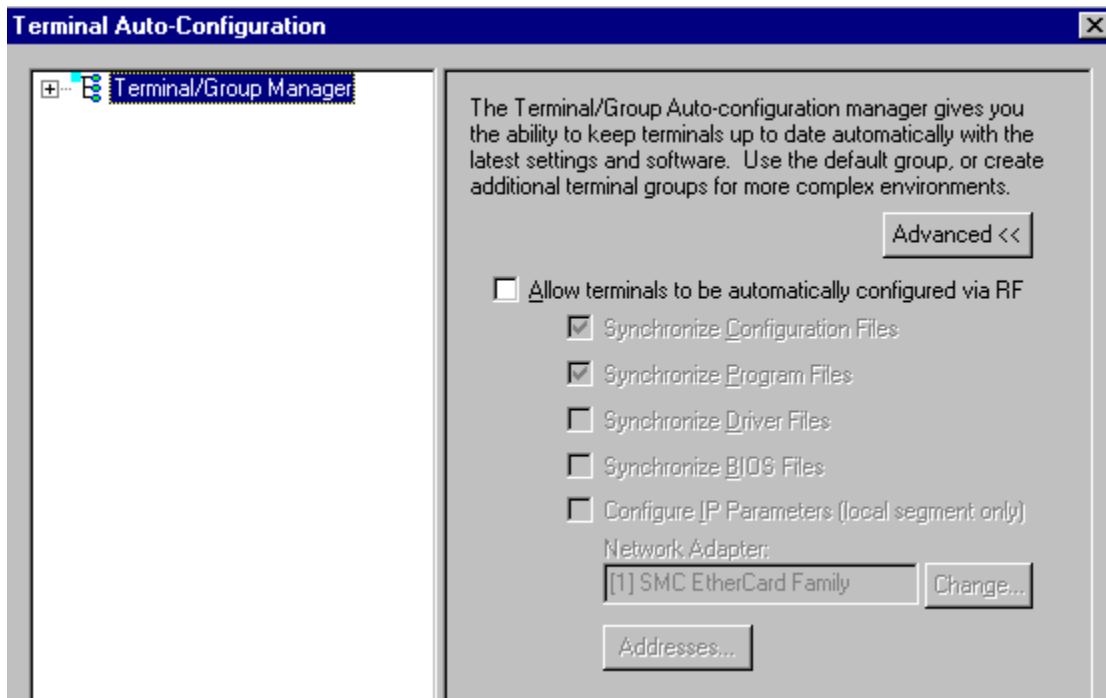
Software Management

In addition to providing functions for the download of files to the terminal via the SRAM card, the Twin Client Manager also provides for the management of terminal software and configurations automatically over the wireless network.

Software Management describes the automated capability in detail. Additional manual operations involving serial download options are described at the end of this chapter.

Auto-Configuration

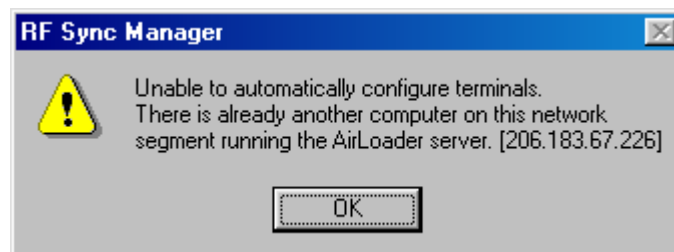
The Auto-Configuration form is accessed from the Twin Client Manager **Settings** menu.



Note: If no options are displayed, click the **Advanced<<** button.

Enabling Automatic Downloads

Click to put a check in the box that allows terminals to be automatically configured via RF to enable automatic downloading. In the event that another PC on the network is already configured and active, the following warning message is displayed.



Synchronizing Configuration Files

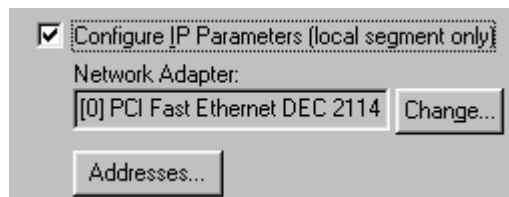
Click to put a check in the Synchronize Configuration Files box to enable automatic synchronization of configuration files on the terminal. When the terminal is cold booted, its configuration files will be compared with the most recent on the PC. The terminal is updated automatically if it does not have the latest revision.

Synchronizing Program Files

Click to put a check in the Synchronize Program Files box to enable automatic synchronization of program files on the terminal. When the terminal is cold booted, its program files will be compared with the most recent on the PC. The terminal is updated automatically if it does not have the latest revision.

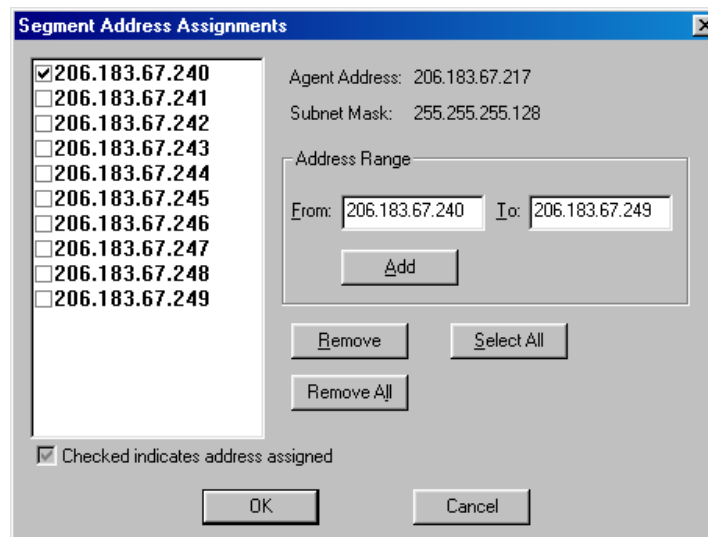
Automatic IP Address Assignment

New terminals will be assigned IP addresses automatically if the following box is checked.



Note: Do not check this option if a DHCP server is configured to manage address assignments.

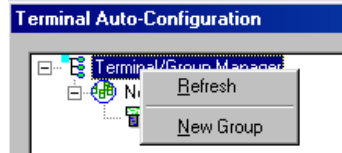
To set the addresses, click on the **Addresses** button to access the Segment Address Assignments dialog box, as shown in the following figure.



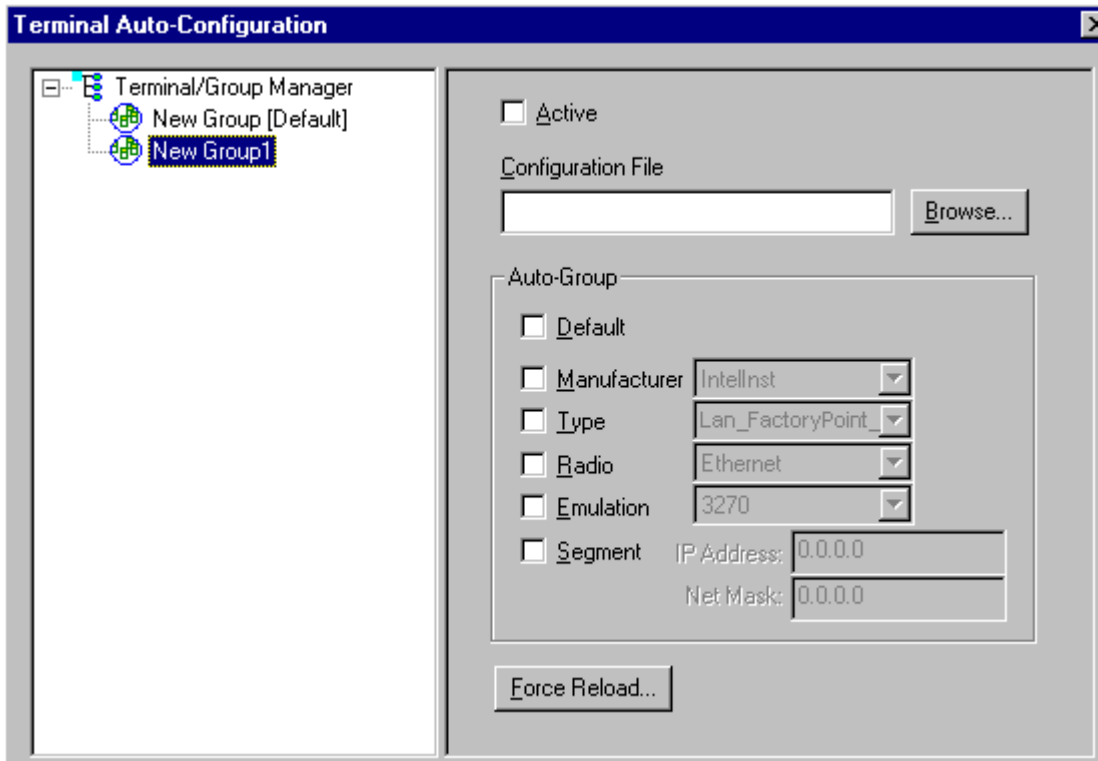
Enter the desired range in the **F**rom and **T**o boxes as shown above, and then click on **Add**.

Creating New Groups

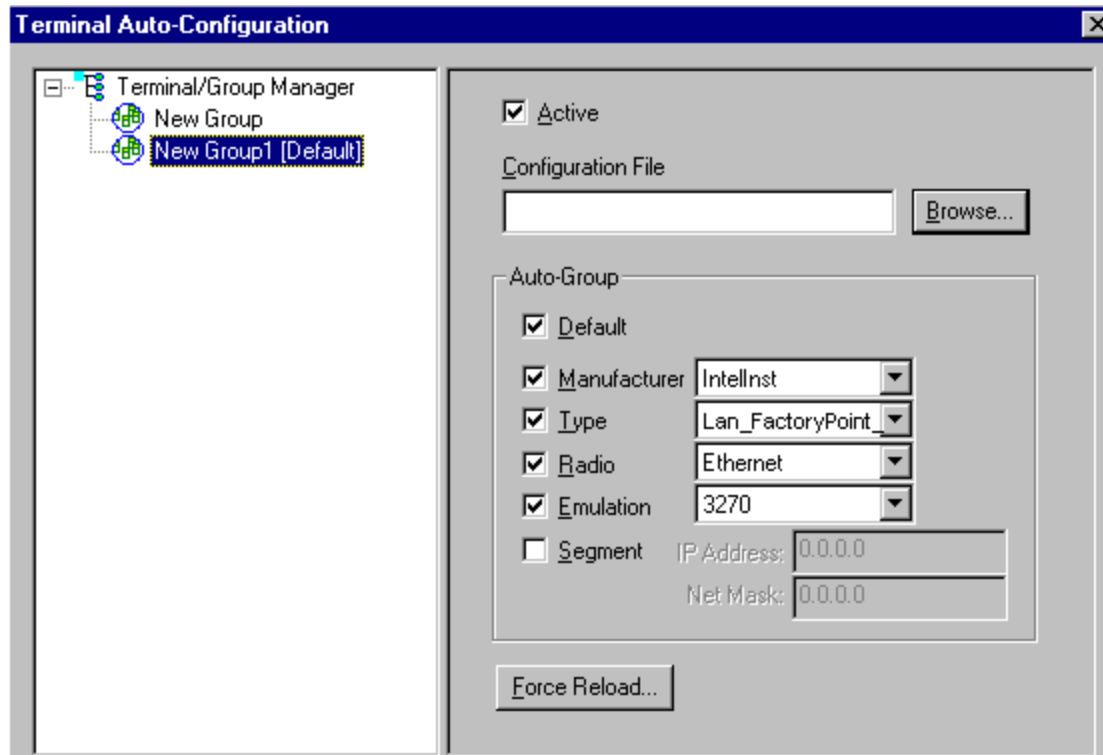
New groups, with different configurations, can be created by clicking on **Terminal/Group Manager**, and then clicking the right mouse button as shown.



After the new group has been created, the group settings option becomes available for change, as shown below.



After the Configuration File and all of the other parameters have been set, the group is made active by clicking on the **Active** check box.

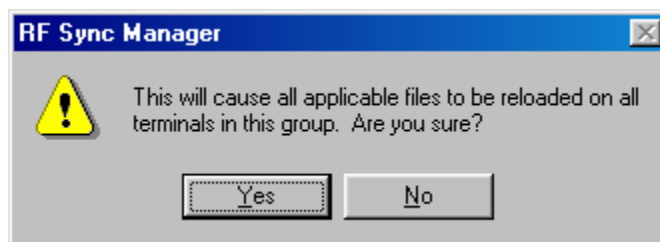


Setting the Segment

Checking the **Segment** button restricts a terminal group to a range of IP addresses. The IP Address can be any valid address on the segment, as it is used only to identify the segment. The setting of the Net Mask can be used to restrict the range. This feature is useful for segregating terminal groups by location.

Setting Force Reload

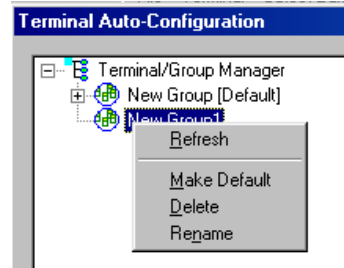
Clicking on the **Force Reload** button forces all terminals within a group to be automatically updated. The following warning message appears.



Click on the **Yes** button to force the reload.

Setting the Default Terminal Group

New terminals that have not yet been assigned to any group are initially assigned to the default group in effect when they are cold-booted.



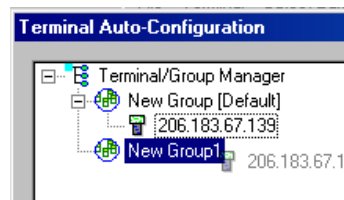
Any group can be made the default group by clicking on the group, and then clicking on the right mouse button. Then click on the **Make Default** option.

Reassigning Terminals

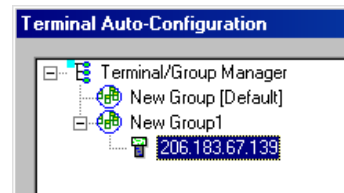
After a terminal has been configured and assigned to the default group, it can be reassigned to a new group by clicking on the terminal icon as shown below.



Then, holding the mouse button down, drag the terminal icon to the desired group as shown next.



Release the mouse button, which reassigns the terminal.



The next time the terminal is rebooted, it will be reconfigured as defined in the group specification.

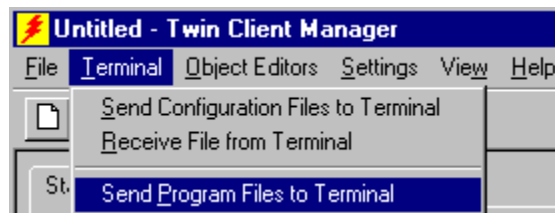
Downloading Intelligent Instrumentation Files

If the Intelligent Instrumentation software is not installed or is out of date, the Twin Client Manager provides for their installation. The following sections describe the required procedures.

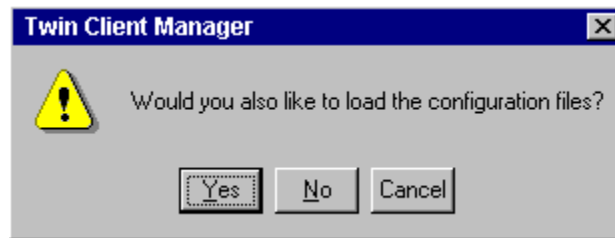
Preparing Intelligent Instrumentation Files for Download

Twin Client program and configuration files are installed on the terminal by copying them to the terminal's SRAM card. You will need to use the DOS command or Windows Explorer to copy the files from the C:\PowerNet\TwinClient\terminal\Intellinst\download folder to the SRAM card, and install the SRAM card into the terminal.

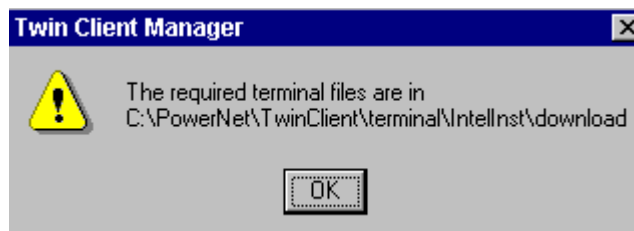
Click on the **Send Program Files to Terminal** menu option.



At the prompt, choose **Yes**.



The following screen appears.



Now use Windows Explorer or the DOS command prompt to copy the files located in the directory above to the SRAM card. Then, install the SRAM card in the terminal and cold boot the terminal. The Twin Client Manager will then automatically manage the terminal software and configuration.

See your Intelligent Instrumentation documentation for instructions on copying the necessary files to the download folder. After downloading, Twin Client will run when you reboot the terminal by powering it off then on.

Cold Booting the Terminal

At any time it is necessary to update the terminal software and/or configuration, the terminal must be cold-booted. To cold boot the terminal, simply turn the power Off, wait 10 seconds, and turn the power On.

A successful wireless connection is indicated by the display of the Twin Client main menu shown below.

```
Twin Client
© 1991-2006, Connect, Inc.

Keypress to Continue
```

The terminal is now ready to establish a Telnet session with the host system.

Starting a Telnet Session

At the Twin Client main menu on the terminal, press any key to establish the connection. Until the terminal has been authorized, the following screen is displayed.

```
RECOVERABLE ERROR
Terminal not
Authorized for
Twin Client

Keypress To Continue
```

It is not necessary to authorize the terminal at this time, so press any key to continue. The terminal will establish a connection with the host system and start emulation. If the terminal fails to connect to the host, refer to the following table.

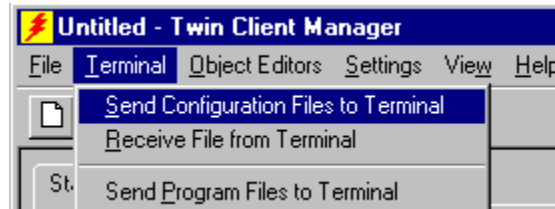
Error Indication	Possible Cause	Corrective Action
NOT Associated	Invalid NETID	Run CFG24 (or current Symbol radio setup program) and set NETID to match the access point. See <i>Terminal Setup Using Twin Client Menus</i> .
Unable to open connection	IP stack on terminal failed to load	Reload Program Files and reboot.
Timeout waiting for data	Transient communications failure	Reboot terminal. If problem persists, check the RFSYNC.log in the PowerNetTN directory.
Download aborted	Socket closed during download	Ensure that PC is operating. Reboot terminal and retry.

After a Telnet session has been successfully established, the terminal will remain in session for a maximum of 30 minutes at a time until it has been authorized. Once authorized, there is no software restriction on the session time. The instructions for authorizing the terminal are presented in *Authorizing PowerNet*.

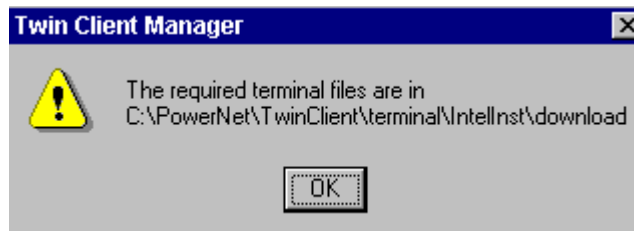
Manual Download of Configuration Files

The automated configuration management provided by the Twin Client Manager eliminates the need for manual terminal configuration. However, this function can be accomplished manually by clicking on **Send Configuration Files to Terminal**.

Note: This procedure assumes that the PowerNet Twin Client was previously installed.

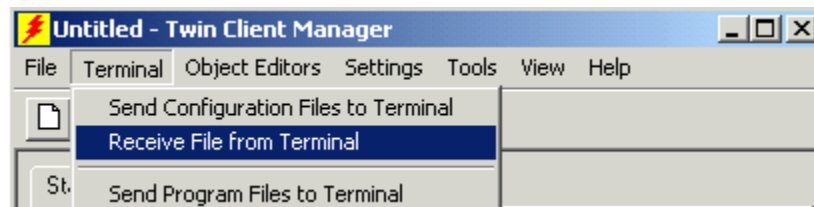


The following figure is displayed.

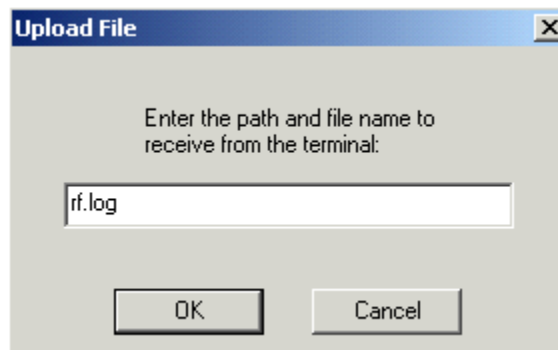


Now use Windows Explorer or the DOS command prompt to copy the files located in the directory above to the SRAM card. Then, install the SRAM card in the terminal. The terminal is now ready to begin a Telnet session with the new configuration files.

Under **Terminal**, you may select **Receive File from Terminal**.



Enter the path and file name to receive from the terminal in the Upload File dialog box.



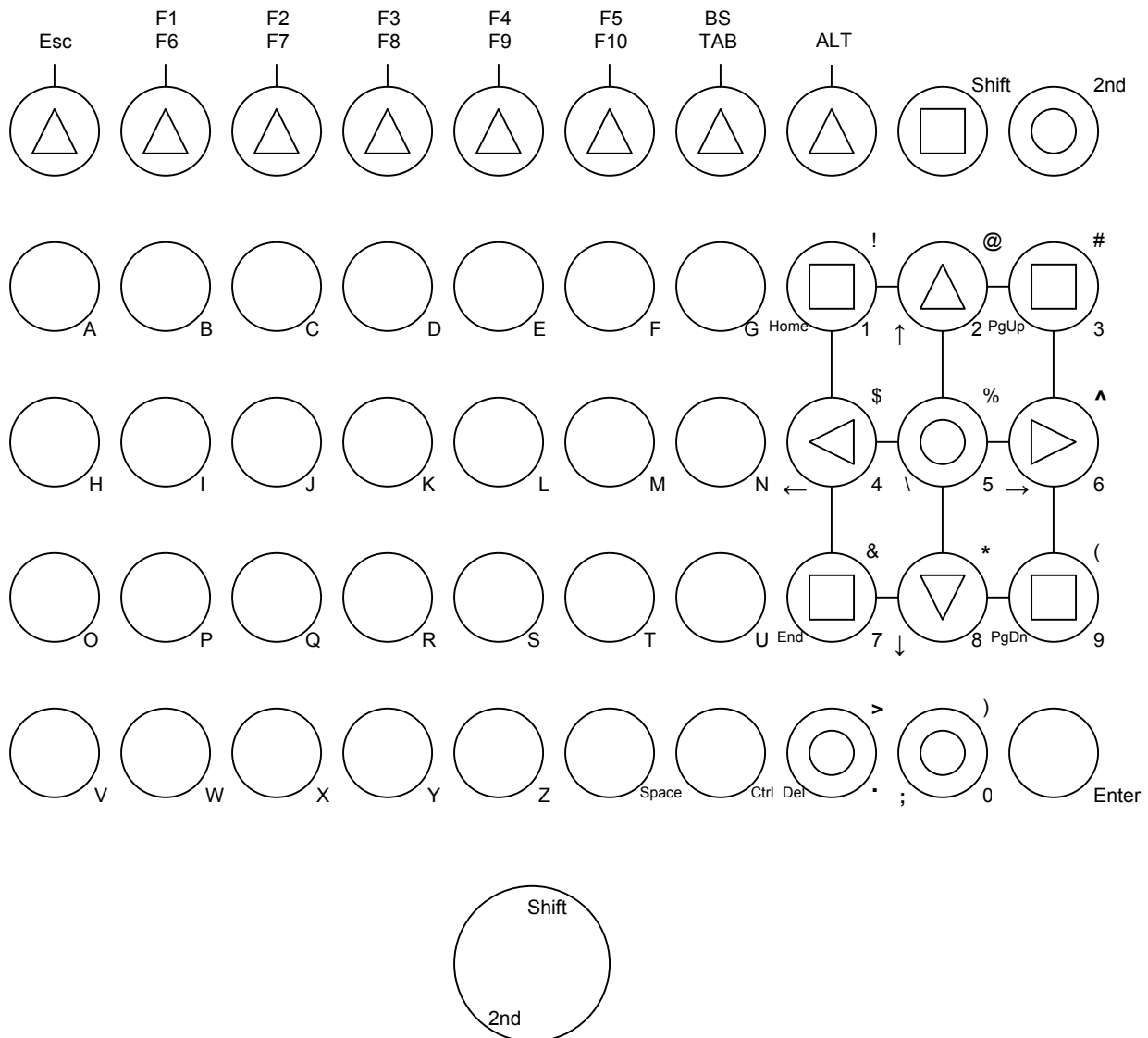
The default file is "rf.log". Click on **OK**.

This page is intentionally blank.

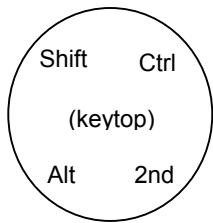
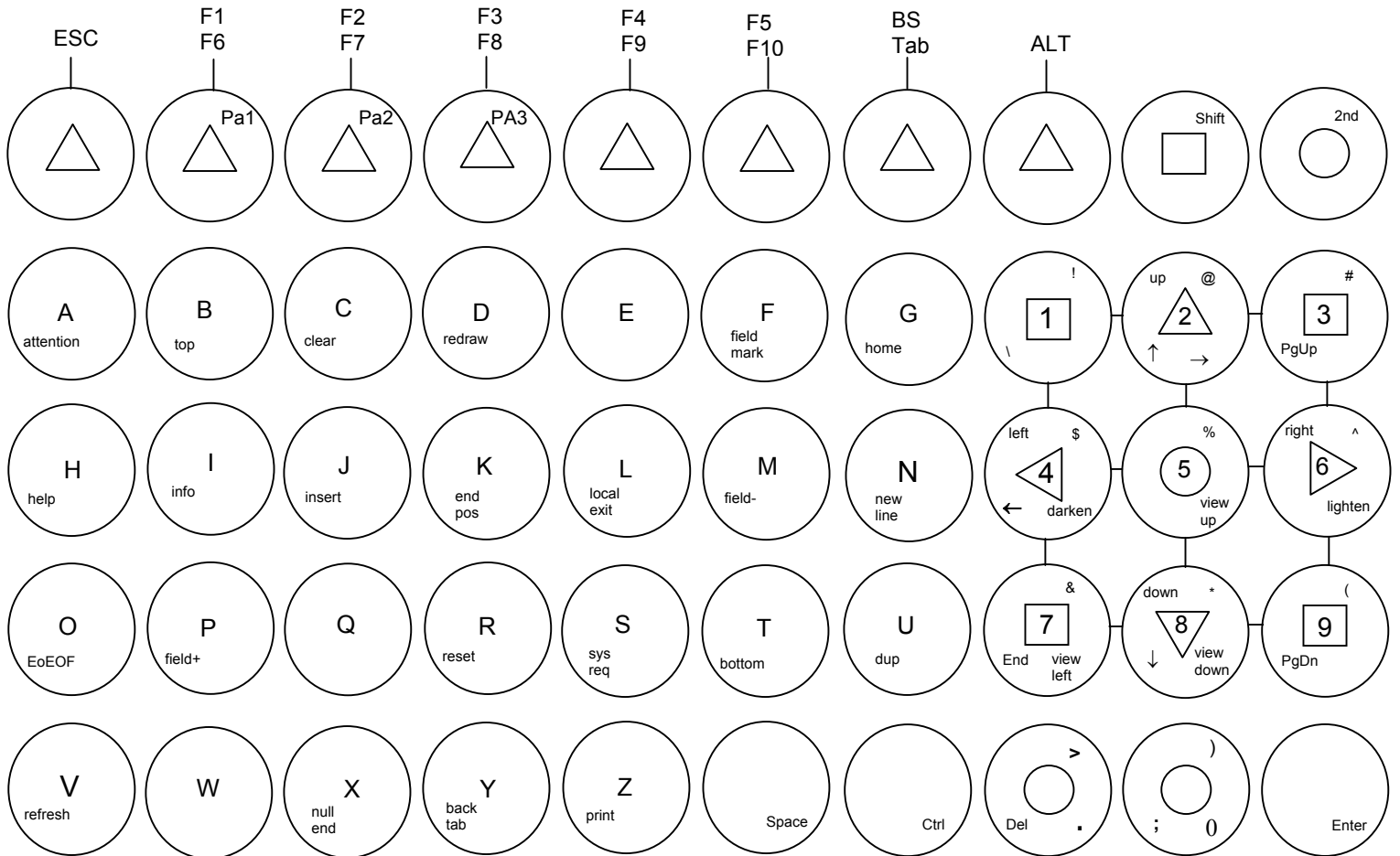
Chapter 3 • Keypad Configuration

Keypad Figures

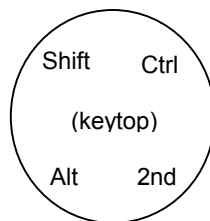
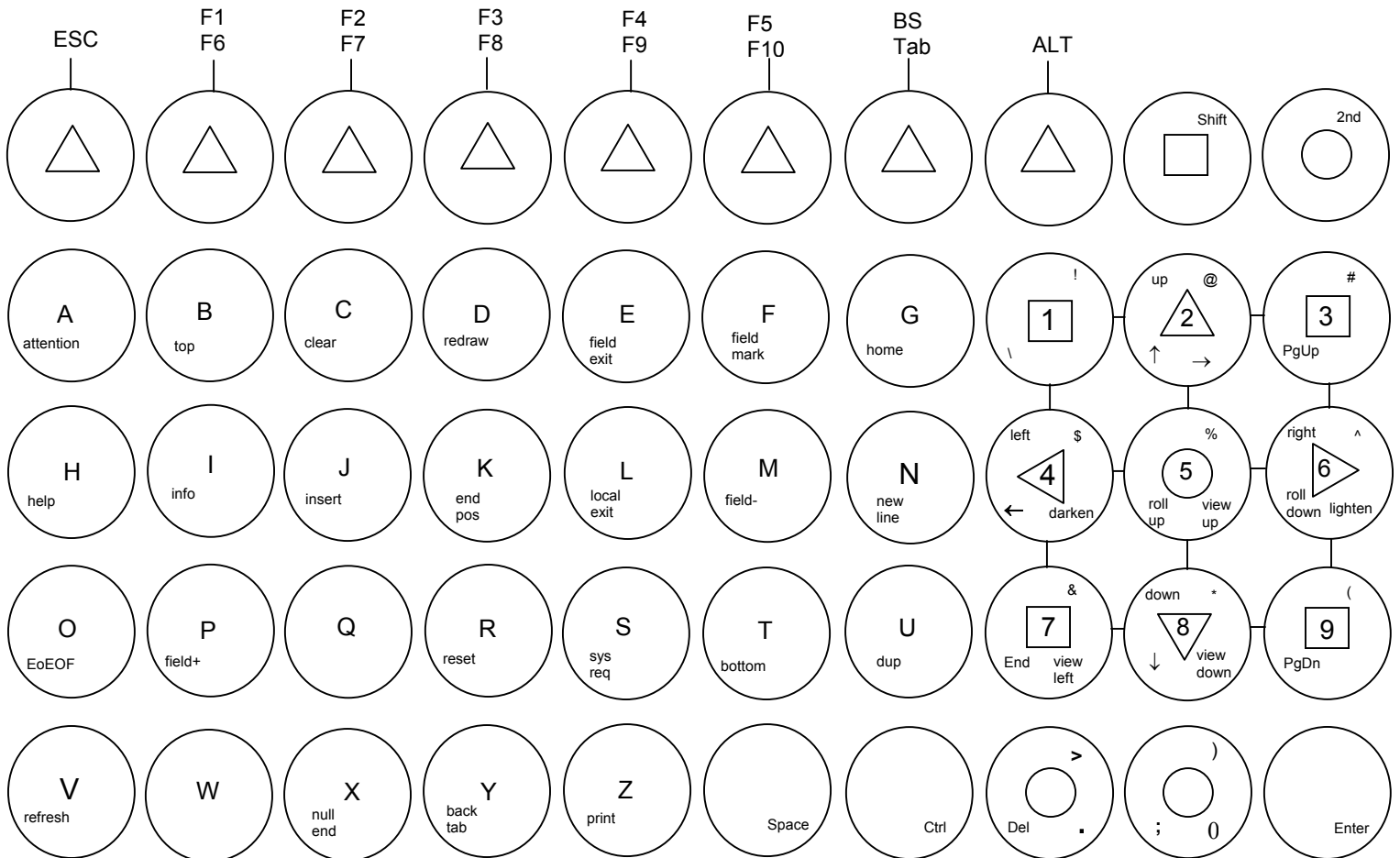
FACTORYpoint PRO VT Keyboard



FACTORYpoint PRO 3270 Keyboard



FACTORYpoint PRO 5250 Keyboard



Keypad Table

The keypad table in this section is organized by terminal model, keypad configuration, and emulation. The key values represent the default keypad assignments applied to the terminal in Twin Client advanced mode.

Key	VT	3270	5250
1	<1>	<1>	<1>
2	<2>	<2>	<2>
3	<3>	<3>	<3>
4	<4>	<4>	<4>
5	<5>	<5>	<5>
6	<6>	<6>	<6>
7	<7>	<7>	<7>
8	<8>	<8>	<8>
9	<9>	<9>	<9>
0	<0>	<0>	<0>
a	<a>	<a>	<a>
b			
c	<c>	<c>	<c>
d	<d>	<d>	<d>
e	<e>	<e>	<e>
f	<f>	<f>	<f>
g	<g>	<g>	<g>
h	<h>	<h>	<h>
i	<i>	<i>	<i>
j	<j>	<j>	<j>
k	<k>	<k>	<k>
l	<l>	<l>	<l>
m	<m>	<m>	<m>
n	<n>	<n>	<n>
o	<o>	<o>	<o>
p	<p>	<p>	<p>
q	<q>	<q>	<q>
r	<r>	<r>	<r>
s	<s>	<s>	<s>
t	<t>	<t>	<t>
u	<u>	<u>	<u>
v	<v>	<v>	<v>
w	<w>	<w>	<w>
x	<x>	<x>	<x>
y	<y>	<y>	<y>
z	<z>	<z>	<z>
F1	<F1>	<F1>	<F1>
F2	<F2>	<F2>	<F2>
F3	<F3>	<F3>	<F3>
F4	<F4>	<F4>	<F4>
F5	<F5>	<F5>	<F5>
Esc	<Esc>	<Esc>	<Esc>
BS	<BS>	<BS>	<BS>
Alt	<Alt>	<Alt>	<Alt>
Shift	<Shift>	<Shift>	<Shift>
2 nd	<2nd>	<2nd>	<2nd>
Space	<Space>	<Space>	<Space>
Ctrl	<Ctrl>	<Ctrl>	<Ctrl>
.	period	<.>	<.>
Enter	<Enter>	<Enter>	<Enter>
F6	<2nd><F1>	<2nd><F1>	<2nd><F1>
F7	<2nd><F2>	<2nd><F2>	<2nd><F2>
F8	<2nd><F3>	<2nd><F3>	<2nd><F3>
F9	<2nd><F4>	<2nd><F4>	<2nd><F4>
F10	<2nd><F5>	<2nd><F5>	<2nd><F5>
Tab	<2nd><BS>	<2nd><BS>	<2nd><BS>

A		<Shift><a>	<Shift><a>	<Shift><a>
B		<Shift>	<Shift>	<Shift>
C		<Shift><c>	<Shift><c>	<Shift><c>
D		<Shift><d>	<Shift><d>	<Shift><d>
E		<Shift><e>	<Shift><e>	<Shift><e>
F		<Shift><f>	<Shift><f>	<Shift><f>
G		<Shift><g>	<Shift><g>	<Shift><g>
H		<Shift><h>	<Shift><h>	<Shift><h>
I		<Shift><i>	<Shift><i>	<Shift><i>
J		<Shift><j>	<Shift><j>	<Shift><j>
K		<Shift><k>	<Shift><k>	<Shift><k>
L		<Shift><l>	<Shift><l>	<Shift><l>
M		<Shift><m>	<Shift><m>	<Shift><m>
N		<Shift><n>	<Shift><n>	<Shift><n>
O		<Shift><o>	<Shift><o>	<Shift><o>
P		<Shift><p>	<Shift><p>	<Shift><p>
Q		<Shift><q>	<Shift><q>	<Shift><q>
R		<Shift><r>	<Shift><r>	<Shift><r>
S		<Shift><s>	<Shift><s>	<Shift><s>
T		<Shift><t>	<Shift><t>	<Shift><t>
U		<Shift><u>	<Shift><u>	<Shift><u>
V		<Shift><v>	<Shift><v>	<Shift><v>
W		<Shift><w>	<Shift><w>	<Shift><w>
X		<Shift><x>	<Shift><x>	<Shift><x>
Y		<Shift><y>	<Shift><y>	<Shift><y>
Z		<Shift><z>	<Shift><z>	<Shift><z>
!	exclamation	<Ctrl><1>	<Ctrl><1>	<Ctrl><1>
@	at sign	<Ctrl><2>	<Ctrl><2>	<Ctrl><2>
#	pound	<Ctrl><3>	<Ctrl><3>	<Ctrl><3>
\$	dollar	<Ctrl><4>	<Ctrl><4>	<Ctrl><4>
%	percent	<Ctrl><5>	<Ctrl><5>	<Ctrl><5>
^	carat	<Ctrl><6>	<Ctrl><6>	<Ctrl><6>
&	ampersand	<Ctrl><7>	<Ctrl><7>	<Ctrl><7>
*	asterisk	<Ctrl><8>	<Ctrl><8>	<Ctrl><8>
(left parenthesis	<Ctrl><9>	<Ctrl><9>	<Ctrl><9>
)	right parenthesis	<Ctrl><0>	<Ctrl><0>	<Ctrl><0>
>	greater-than sign	<Ctrl><. >	<Ctrl><. >	<Ctrl><. >
PA1		---	<Ctrl><F1>	---
PA2		---	<Ctrl><F2>	---
PA3		---	<Ctrl><F3>	---
\	backward slash	<Alt><1>	<Alt><1>	<Alt><1>
↑	up arrow	<Alt><2>	<Alt><2>	<Alt><2>
Pg Up		<Alt><3>	<Alt><3>	<Alt><3>
←	left arrow	<Alt><4>	<Alt><4>	<Alt><4>
Roll up		---	---	<Alt><5>
Roll down		---	---	<Alt><6>
End		<Alt><7>	<Alt><7>	<Alt><7>
↓	down arrow	<Alt><8>	<Alt><8>	<Alt><8>
Pg Dn		<Alt><9>	<Alt><9>	<Alt><9>
;	semicolon	<Alt><0>	<Alt><0>	<Alt><0>
Del		<Alt><. >	<Alt><. >	<Alt><. >
Up		<Shift><2>	<Shift><2>	<Shift><2>
Left		<Shift><4>	<Shift><4>	<Shift><4>
Right		<Shift><6>	<Shift><6>	<Shift><6>
Down		<Shift><8>	<Shift><8>	<Shift><8>
→	right arrow	<2nd><2>	<2nd><2>	<2nd><2>
Darken		<2nd><4>	<2nd><4>	<2nd><4>
View up		<2nd><5>	<2nd><5>	<2nd><5>
Lighten		<2nd><6>	<2nd><6>	<2nd><6>
View left		<2nd><7>	<2nd><7>	<2nd><7>
View down		<2nd><8>	<2nd><8>	<2nd><8>
View right		<2nd><9>	<2nd><9>	<2nd><9>
Attention		---	<Alt><a>	<Alt><a>
Top		---	<Alt>	<Alt>
Clear		---	<Alt><c>	<Alt><c>

Redraw	---	<Alt><d>	<Alt><d>
Field exit	---	---	<Alt><e>
EOF	---	<Alt><e>	---
Field mark	---	<Alt><f>	<Alt><f>
Home	---	<Alt><g>	<Alt><g>
Help	---	<Alt><h>	<Alt><h>
Info	---	<Alt><i>	<Alt><i>
Insert	---	<Alt><j>	<Alt><j>
End pos	---	<Alt><k>	<Alt><k>
Local exit	---	<Alt><l>	<Alt><l>
Field-	---	<Alt><m>	<Alt><m>
New line	---	<Alt><n>	<Alt><n>
EoEOF	---	<Alt><o>	<Alt><o>
Field+	---	<Alt><p>	<Alt><p>
Reset	---	<Alt><r>	<Alt><r>
Sys req	---	<Alt><s>	<Alt><s>
Bottom	---	<Alt><t>	<Alt><t>
Dup	---	<Alt><u>	<Alt><u>
Refresh	---	<Alt><v>	<Alt><v>
Null end	---	<Alt><x>	<Alt><x>
Back tab	---	<Alt><y>	<Alt><y>
Print	---	<Alt><z>	<Alt><z>

Chapter 4 • Error Message Resolution Guide

Twin Client Error Message Resolution Guide

Message	Reason	Solution	Reference Tech Note
ENTRY TOO LONG;	Trying to key beyond the field size.	Ensure that you are entering input into the correct field.	---
ALPHABETIC ONLY;	Trying to key a character that is not alphabetic.	Ensure that you are entering input into the correct field.	---
MINUS NOT VALID;	Trying to key a Minus sign.	Ensure that you are entering input into the correct field.	---
DECIMAL NOT VALID;	Trying to key a Decimal (period).	Ensure that you are entering input into the correct field.	---
ALPHANUMERIC ONLY;	Trying to key characters other than Alphabetic and numeric.	Ensure that you are entering input into the correct field.	---
NUMERIC ONLY;	Trying to key characters other than numeric.	Ensure that you are entering input into the correct field.	---
ENTRY TOO SHORT;	Trying to exit the field before it is filled.	Ensure that you are entering input into the correct field.	---

Message	Reason	Solution	Reference Tech Note
INVALID KEY;	The key pressed is not valid.	Ensure that you are entering input into the correct field.	---
MUST CLEAR FIELD;	Trying to enter data in a field that must be cleared first.	Ensure that you are entering input into the correct field.	---
SCAN NOT ALLOWED;	Trying to scan into a key only field.	Ensure that you are entering input into the correct field.	---
KEY NOT ALLOWED;	Trying to key into a scan only field.	Ensure that you are entering input into the correct field.	---
ENTRY TOO SHORT;	Trying to exit the field before it is filled.	Ensure that you are entering input into the correct field.	---
RECOVERABLE ERROR;	Encountered an error from which you can continue.	Verify that your configuration settings for the hardware being used, usually a printer and cable issue.	---
UNRECOVERABLE ERROR;	Encountered an error from which you can NOT continue.	Verify that your Network settings are correct and you are in the correct mode using the correct Port.	T1113, T1114, T1161, T1171, T1187 and T1194
FUNCTION: \n\nFILE: \n\nLINE: \n\nCODE;	Encountered an error from which you can NOT continue.	Notify Connect over the web incident reporting system.	---
Press any key\nFor More Details...;	Press Enter for more information.	Advisory message.	---
Press any key;	Press a key to continue.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Connection ERROR.\nREBOOT MOBILE UNIT;	Could not Connect.	Verify that your Network settings are correct and you are in the correct mode using the correct Port.	T1113, T1114, T1161, T1171, T1187 and T1194
Disconnect ERROR.\nREBOOT MOBILE UNIT;	Could not Disconnect.	Verify that your Network settings are correct and you are in the correct mode using the correct Port.	T1113, T1114, T1161, T1171, T1187 and T1194
RF Send ERROR.\nREBOOT MOBILE UNIT;	Could not Send.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
RF Receive ERROR.\nREBOOT MOBILE UNIT;	Could not Receive.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
RF Check ERROR.\nREBOOT MOBILE UNIT;	Could not run the RF Survey.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
RF Timeout ERROR.\nREBOOT MOBILE UNIT;	Have been trying to contact the host for the radio timeout period (2 minutes default).	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
REBOOT MOBILE UNIT;	Reboot the Mobile Unit do to loss of connection.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Retry (Y/N)?;	Try again.	Try to send or receive again, or perhaps ensure that the printer is cabled to the Mobile Unit and is on.	---

Message	Reason	Solution	Reference Tech Note
TIMEOUT\n\nSending Data;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
TIMEOUT\n\nReceiving Data;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Host Received Data\nAwaiting App Reply!;	Mobile Unit has sent and received an acknowledgement from the IP stack and is waiting for the application to return data.	Most likely a host or network issue. Troubleshoot the customer's environment. Probable causes are Database record locking, application program failure, Host failure or network failure.	T1113, T1114, T1161, T1171, T1187 and T1194
* WAITING TO SEND *;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
TCP Error Reading\nMAC Address.\nREBOOT MOBILE UNIT;	Could not obtain the Mac Address from the Mobile Unit.	Possible hardware, driver or stack problem Contact the Mobile Unit manufacturer.	---
Invalid TIP Command;	Bad internal protocol.	Notify Connect over the web incident reporting system.	---
Session Ended\nBy User or Host;	User, Host, application or network has ended the session.	If the user did not end the session, most likely host or network issues. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Server Packet Error;	Bad Protocol detected.	Usually a result of bad cabling, power or faulty transceiver. Also, will receive this if the Mobile Unit is in the wrong mode for Server operation.	---

Message	Reason	Solution	Reference Tech Note
Error receiving host\nlist from Server;	Bad Protocol detected.	Usually a result of bad cabling, power or faulty transceiver. Also, will receive this if the Mobile Unit is in the wrong mode for Server operation.	---
Unexpected Server\ndata received;	Bad Protocol detected.	Usually a result of bad cabling, power or faulty transceiver. Also, will receive this if the Mobile Unit is in the wrong mode for Server operation.	---
Error starting\nhost application;	Connected to the server but can not connect to the distant end.	Configure the server handler to access the host application.	---
Select Host or App;	Need to choose your Host/application destination.	User selection required.	---
Connecting...;	Attempting to connect to the Host/application.	Advisory message.	---
TCP Error\nReading IP Address\nREBOOT MOBILE UNIT;	Mobile Unit missing Network IP information.	Configure the Mobile Unit with the correct network IP information.	---
Printer start error;	Could not initialize the printer.	Cable or power issue with the printer.	---
Battery too low\nto print;	Not enough power to print.	Replace the battery with a fully recharged battery.	---
Paper Feed Error\nFix Then Hit Enter;	Paper in the printer is not ready.	Replace the paper or rethread the paper in the printer.	---
Printer Error\nPrint Ended;	Can not print.	Check cable, battery, communication settings and paper in the printer.	---

Message	Reason	Solution	Reference Tech Note
User Count Exceeded.\n Session Ended;	Possible authorization issue.	Verify that you have the correct number of licenses for the number of Mobile Units you are using.	---
Primary Unavailable\nTrying Alternate;	First Host IP address not available trying the remaining addresses in the Host list.	Verify the host address.	---
APMAC.DAT Error\nSession Ended;	Access point Media Access Control error.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
MUIP.DAT Error\nSession Ended;	Mobile Unit IP Error.	Most likely a Mobile Unit network setting issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Missing Subnet IP\nSession Ended;	Mobile Unit IP Netmask Error.	Most likely a Mobile Unit network setting issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Error Opening File;	File is missing.	Verify that the configuration files are on the Mobile Unit. Or perhaps there is a hardware failure.	---
Telnet API\nnot found;	Program files are missing.	Reload program files.	---
Battery Low Warning\n\nReplace Battery Soon;	Not enough power to operate the Mobile Unit.	Replace the battery with a fully recharged battery.	---
No Host List.\nPress any key\nTo Edit Host IP's;	Have not configured your target hosts.	Configure the target host IP addresses.	---
Unable to Allocate\nFont Memory;	Mobile Unit does not have enough memory to load the fonts.	Reduce the fonts in use or expand the memory in the Mobile Unit.	---

Message	Reason	Solution	Reference Tech Note
Font Loading Error;	Could not load the font.	Ensure that the font is available to load.	---
Printer Not Ready\nPress R to Retry\nC to Cancel Print;	Can not print.	Check cable, battery, communication settings and paper in the printer.	---
Mobile Unit in\nDemonstration Mode\nfor TwinClient;	Running in demo mode.	Purchase a license from Connect.	---
Connected to Host;	Successful connection to the target Host.	Advisory message.	---
Telnet Mode not\nsupported on\nthis Mobile Unit;	This Mobile Unit must be used with a Connect Server.	Order a Connect Server.	---
Telnet Setup files\nnot found. Reload\nfiles then switch;	Customer specific configuration files are missing.	Load the configuration files into the Mobile Unit from Twin Client Manager.	---
Switched Client to\nTelnet Direct Mode;	Mobile Unit running in Telnet mode direct to the target Host.	Advisory message.	---
Switched Client to\nServer Based Mode;	Mobile Unit running through a Connect server in Server mode usually at port 1800.	Advisory message.	---
Port 23 is only\nallowed in Telnet Mode;	Can not set the port to 23 in Server mode. Port 23 is the standard Telnet port.	Advisory message.	---
Not Enough Memory\nTo Run;	Mobile Unit does not have the capacity to run the program do to memory restrictions.	Expand the Mobile Unit memory.	---
Press any key;	Press a key to continue.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
TwinClient Telnet;	Prompt.	Advisory message.	---
TwinClient Server;	Prompt.	Advisory message.	---
TwinClient TN3270;	Prompt.	Advisory message.	---
TwinClient TN5250;	Prompt.	Advisory message.	---
TwinClient TNVT;	Prompt.	Advisory message.	---
(c) 1991-2006 Connect;	Prompt.	Advisory message.	---
Edit Menu Options;	Menu Title.	Advisory message.	---
Edit Mobile Unit IP;	Menu Option.	Advisory message.	---
Edit Server/Host IPs;	Menu Option.	Advisory message.	---
Edit Radio Option;	Menu Option.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Edit License Key;	Menu Option.	Advisory message.	---
Run Site Survey;	Menu Option.	Advisory message.	---
Switch Client Modes;	Menu Option.	Advisory message.	---
Run TwinClient;	Menu Option.	Advisory message.	---
Exit to OS;	Menu Option.	Advisory message.	---
Printer may not be\nplugged in or\nturned on!;	Can not print.	Check cable, battery, communication settings and paper in the printer.	---
OUT OF RANGE OF BASE;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
CONNECT SERIAL CABLE;	Serial cable not connected to the Mobile Unit.	Check cable, battery and communication settings for the Mobile Unit.	---
REMOVE SERIAL CABLE;	Remove serial cable from to the Mobile Unit.	Check cable, battery and communication settings for the Mobile Unit.	---
PLACE IN CRADLE;	Place the Mobile Unit in the cradle.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
REMOVE FROM CRADLE;	Remove Mobile Unit from the cradle.	Advisory message.	---
ACQUIRING CRADLE BUS;	Attempting to access the cradle through the serial port you have configured.	Advisory message.	---
Printer Out\nOf Range;	Printer out of the coverage area.	Most likely a range, access point or radio issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Connection Refused\nBy Host;	You connected to the target host but the host disconnected you.	Verify that the configuration file has the correct Mobile Unit type and New environment variable set. Fallback to the Connect Default to verify the connection.	---
Connection Timed Out;	You connected to the host but did not logon in the appropriate time so the host disconnected you.	Modify the Host parameters for login.	---
Connection Failed\nHost Not Responding;	Could not connect to the Host.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Connection Failed\nHost Unreachable;	Could not connect to the Host.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Mobile Unit Out\nOf Range, Unable\nTo Transmit;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Mobile Unit Out\nOf Range, Unable\nTo Receive;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	---

Message	Reason	Solution	Reference Tech Note
Printer Not Responding;	Can not print.	Check cable, battery, communication settings and paper in the printer.	---
Printer Out Of Range;	Printer out of the coverage area.	Most likely a range, access point or radio issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Print Complete;	Prompt.	Advisory message.	---
Reprint (Y/N)?;	Yes or No prompt for a reprint.	Advisory message.	---
WARNING;	Prompt.	Advisory message.	---
Turning power off during a session will cause the program to restart;	This Mobile Unit will disconnect the session if powered off.	Mobile Unit manufacturer limitation. Advisory message.	---
Are you sure (y/n)?;	Yes or No prompt for a confirmation.	Advisory message.	---
You Sure? (YyNn);	Yes or No prompt for a confirmation.	Advisory message.	---
Domain Name Server Not Set;	DOMAIN NAME SERVER not configured.	Configure the Mobile Unit with the correct network IP information.	---
Domain Name Server Query Memory Error;	Memory error on the Mobile Unit	Expand the Mobile Unit memory or return the Mobile Unit for repair.	---

Message	Reason	Solution	Reference Tech Note
Domain Name Server\nQuery Sending Error;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Domain Name Server\nQuery Receive Error;	Mobile Unit out of the coverage area.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Domain Name Server\nUnavailable;	Could not connect to the DOMAIN NAME SERVER.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Error loading\nparameter file;	Could not load the parameter file.	Reload the correct configuration files.	---
Could not open\nTelnet interface;	Could not Telnet.	Reload the program files.	---
Could not set\nmtelnet options;	Could not use the Telnet configuration.	Reload the correct configuration files.	---
Setup file\nsetting mismatch\nReload Setup;	Emulation program selected is not compatible with the configuration file on the Mobile Unit.	Remove the emulation and configuration files. Run clear Telnet on the Mobile Unit then reload the Mobile Unit with the proper emulation and configuration files.	---
Display formatting\ntoo large for\ncurrent screen;	Mobile Unit does not have enough memory to run your configured reformatted screens.	Expand the Mobile Unit memory or order a server from Connect.	---
Mobile Unit\ninitialization error;	Mobile Unit problem.	Return the Mobile Unit to the manufacturer for repair.	---

Message	Reason	Solution	Reference Tech Note
Host/App/Network\nclosed the session;	Customer's environment disconnected the Mobile Unit session.	Most likely a range, access point, radio, host or network issue. Troubleshoot the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Disconnecting...;	Prompt.	Advisory message.	---
Scan Barcode;	Bar code scanning test.	Advisory message.	---
Enter Setup\nPassword;	Prompt.	Advisory message.	---
Enter Profile \nPassword;	Prompt.	Advisory message.	---
Host IP;	Host IP address prompt.	Enter target host IP address.	---
Host Name;	Host name prompt.	Enter target host Name.	---
Port;	Host IP port required.	Enter 23 for Telnet or 1800 for a Connect Server. Could also be a different number depending on the customer's environment.	T1113, T1114, T1161, T1171, T1187 and T1194
Mobile Unit Type;	Prompt.	Advisory message.	---
WARNING: This will \nend any\ncurrent session;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Continue (Y/N)?;	Prompt.	Advisory message.	---
HOST ENTRY;	Prompt.	Advisory message.	---
VT(100/220) Setup;	Prompt.	Advisory message.	---
Mobile Unit Info;	Prompt.	Advisory message.	---
Emulation Setup;	Prompt.	Advisory message.	---
ANSI Setup;	Prompt.	Advisory message.	---
Miscellaneous Setup;	Prompt.	Advisory message.	---
Mobile Unit Type;	Prompt.	Advisory message.	---
Control Codes;	Prompt.	Advisory message.	---
Local Echo;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
<BK SP> Sends;	Prompt.	Advisory message.	---
New Line Mode;	Prompt.	Advisory message.	---
Insert Mode;	Prompt.	Advisory message.	---
Autowrap Mode;	Prompt.	Advisory message.	---
Cursor;	Prompt.	Advisory message.	---
EMULATION SETUP;	Prompt.	Advisory message.	---
Mobile Unit Type;	Prompt.	Advisory message.	---
Local Echo;	Prompt.	Advisory message.	---
Map Underline;	Prompt.	Advisory message.	---
Break Key;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
ANSI Setup;	Prompt.	Advisory message.	---
Control Codes;	Prompt.	Advisory message.	---
Backspace Key;	Prompt.	Advisory message.	---
MISCELLANEOUS SETUP;	Prompt.	Advisory message.	---
Test Options;	Prompt.	Advisory message.	---
Login Options;	Prompt.	Advisory message.	---
TEST OPTIONS;	Prompt.	Advisory message.	---
Printer Test;	Prompt.	Advisory message.	---
Scan Code Test;	Prompt.	Advisory message.	---
LOGIN OPTIONS;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
User Name;	Prompt.	Advisory message.	---
User Password;	Prompt.	Advisory message.	---
ON;	Prompt.	Advisory message.	---
OFF;	Prompt.	Advisory message.	---
Map;	Prompt.	Advisory message.	---
Don't Map;	Prompt.	Advisory message.	---
Enable Break;	Prompt.	Advisory message.	---
Disable Break;	Prompt.	Advisory message.	---
7 bit;	Prompt.	Advisory message.	---
8 bit;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Send Delete;	Prompt.	Advisory message.	---
Send Backspace;	Prompt.	Advisory message.	---
Mobile Unit Setup;	Prompt.	Advisory message.	---
Scanner Options;	Prompt.	Advisory message.	---
Program Options;	Prompt.	Advisory message.	---
Special Options;	Prompt.	Advisory message.	---
Beeper Options;	Prompt.	Advisory message.	---
Exit to DOS;	Prompt.	Advisory message.	---
Backlight Time;	Prompt.	Advisory message.	---
Enter Key Action;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Reset Options;	Prompt.	Advisory message.	---
Font Size;	Prompt.	Advisory message.	---
Portable Printer;	Prompt.	Advisory message.	---
Reprint Option;	Prompt.	Advisory message.	---
Data IDs;	Prompt.	Advisory message.	---
Internal/External;	Prompt.	Advisory message.	---
Modify Beeps;	Prompt.	Advisory message.	---
Message Beeps;	Prompt.	Advisory message.	---
Scan Identifier;	Prompt.	Advisory message.	---
AID Scan Setup;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Long Scans;	Prompt.	Advisory message.	---
Scan Send;	Prompt.	Advisory message.	---
Yes;	Prompt.	Advisory message.	---
No;	Prompt.	Advisory message.	---
Normal;	Prompt.	Advisory message.	---
Double Wide;	Prompt.	Advisory message.	---
Double High;	Prompt.	Advisory message.	---
Double High and Wide;	Prompt.	Advisory message.	---
Errors Only;	Prompt.	Advisory message.	---
Automatic;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
All Messages;	Prompt.	Advisory message.	---
Reject;	Prompt.	Advisory message.	---
Truncate;	Prompt.	Advisory message.	---
Split;	Prompt.	Advisory message.	---
Do Not Send;	Prompt.	Advisory message.	---
Always Send;	Prompt.	Advisory message.	---
Last Field Only;	Prompt.	Advisory message.	---
Internal;	Prompt.	Advisory message.	---
External;	Prompt.	Advisory message.	---
none;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
monarch;	Prompt.	Advisory message.	---
pddumb;	Prompt.	Advisory message.	---
comtec;	Prompt.	Advisory message.	---
rascal;	Prompt.	Advisory message.	---
codewriter;	Prompt.	Advisory message.	---
comtec(S);	Prompt.	Advisory message.	---
User Name;	Prompt.	Advisory message.	---
Password;	Prompt.	Advisory message.	---
Frequency: Hz;	Prompt.	Advisory message.	---
Duration: ms;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Delay: ms;	Prompt.	Advisory message.	---
Select Scanner;	Prompt.	Advisory message.	---
Setup Scanner;	Prompt.	Advisory message.	---
Scan Test;	Prompt.	Advisory message.	---
Scan Operation;	Prompt.	Advisory message.	---
Laser;	Prompt.	Advisory message.	---
Contact/Pulse;	Prompt.	Advisory message.	---
Contact/No Pulse;	Prompt.	Advisory message.	---
Auto/Pulse;	Prompt.	Advisory message.	---
Auto/No Pulse;	Prompt.	Advisory message.	---

Message	Reason	Solution	Reference Tech Note
Wand Simulation;	Prompt.	Advisory message.	---
VT100;	Prompt.	Advisory message.	---
VT220;	Prompt.	Advisory message.	---
SETUP;	Prompt.	Advisory message.	---
Mobile Unit IP/Radio;	Prompt.	Advisory message.	---
Host List;	Prompt.	Advisory message.	---
NULL;	Prompt.	Advisory message.	---