

Model SF100-G

Quick Start Guide



Copyright and Technical Support

SMSFinder™ Turnkey SMS Server SF100-G Quick Start Guide 82100360L Rev. A

Copyright © 2008 by Multi-Tech Systems, Inc. All rights reserved. This publication may not be reproduced, in whole or in part, without prior written permission from Multi-Tech Systems, Inc. Multi-Tech Systems, Inc. makes no representations or warranty with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose. Furthermore, Multi-Tech Systems, Inc. reserves the right to revise this publication and to make changes from time to time in the content hereof without obligation of Multi-Tech Systems, Inc. to notify any person or organization of such revisions or changes.

Revision Date A 01/25/08 Description Initial release.

Trademarks

Multi-Tech and the Multi-Tech logo are registered trademarks of Multi-Tech Systems, Inc. *SMSFinder* is a trademark of Multi-Tech Systems, Inc.

World Headquarters

Multi-Tech Systems, Inc. 2205 Woodale Drive Mounds View, Minnesota 55112 U.S.A. (763) 785-3500 or (800) 328-9717 U.S. Fax (763) 785-9874 www.multitech.com

Technical Support

 Country
 Email

 Europe, Middle East, Africa
 support@multitech.co.uk

 U.S., Canada, all others
 support@multitech.com

Phone

+44 118 959 7774 800-972-2439 or 763-717-5863

Introduction

This guide shows you how to set up your SMSFinder and how to send a short message. For detailed information, product specifications, and more, see the User Guide, available on the SMSFinder CD and the Multi-Tech Web site.

Safety Warnings

Ethernet Port Caution

The Ethernet port is **not** designed to be connected to a Public Telecommunications Network.

Handling Precautions

All devices must be handled with certain precautions to avoid damage due to the accumulation of static charge. Although input protection circuitry has been incorporated into the devices to minimize the effect of this static build up, proper precautions should be taken to avoid exposure to electrostatic discharge during handling and mounting.

Caution: Maintain a separation distance of at least 20 cm (8 inches) between the transmitter's antenna and the body of the user or nearby persons. The modem is not designed for, nor intended to be, used in applications within 20 cm (8 inches) of the body of the user.

Ship Kit Contents

The SMSFinder ship kit contains the following items:

- One SMSFinder
- Power Supply
- RJ-45 Ethernet Cable
- · Cellular Antenna (not included with all models)
- A set of four self-adhesive plastic feet
- The Quick Start Guide
- One SMSFinder CD which contains the SMSFinder documentation in Acrobat format and a link to the Adobe Web site from which you can download Acrobat Reader.

Cabling Your SMSFinder



- 1. Turn the power off on the PCs and the SMSFinder.
- 2. Plug one end of a RJ-45 cable into the LAN port on the SMSFinder and the other end into the Ethernet port on a network-connected PC.
- 3. Connect the provided power supply cable to the 9 volt power port on the back of the SMSFinder, and plug the other end into an AC power outlet.
- 4. Attach the cellular antenna.
 - Be sure to locate this appliance where there is wireless coverage.
 - The antenna must be attached in order for the SMSFinder to be operational.



Front Panel

0		0	0
Power O Status	LAN 10 /100 () LNK / ACT ()		
-0		Ø	SIM O

Front Panel LEDs and Other Features

LEDs	Description
Power	Lights when power is being supplied to the SMSFinder.
Status	When functioning normally, the LED blinks. The LED is a
	solid light when the SMSFinder is booting up, saving the
	configuration, restarting, or updating the firmware.
LAN	Lights when a successful connection to the 100BaseT LAN
10/100	is established. Off when connected at 10BaseT.
LAN	Lights when the LAN port has a valid Ethernet connection.
LNK/ACT	Blinks when it is receiving or transmitting data.
Modem	TD Transmit Data. This LED blinks when the modem is
	transmitting data to your wireless carrier.
	RD Receive Data. This LED blinks when the modem is
	receiving data from your wireless carrier.
	CD Carrier Detect. This LED lights when the modem
	detects a valid carrier signal from a wireless carrier.
	TR (Data) Terminal Ready. This LED lights when the
	modem is trying to establish a wireless connection.
	LS Link Status. This LED flashes when the network
	registration is OK.
	If the network registration is invalid, the LED will be
	On/Off.
Signal	Indicates the wireless signal strength. See the Signal
	Strength Chart on the next page.
SIM	Location of the SIM card.

Install the SIM Card

A SIM (Subscriber Identity Module) card is required in order for the SMSFinder to operate on a GPRS network. To install the SIM card:

- 1. Use a small screwdriver to remove the screw closest to the outside edge of the SMSFinder. Then swing the SIM slot cover up and over to the left.
- 2. Insert the SIM card into the SIM card slot. The following graphic illustrates the correct SIM card orientation.



Establish a TCP/IP Connection

The following directions establish a TCP/IP connection at the workstation so the PC can communicate with the SMSFinder. The following directions were written using a Windows 2000+ / XP operating system.

Setting a Fixed IP Address

- 1. Make the SMSFinder connections as described on the previous two pages.
- 2. Click Start | Settings | Control Panel. Double-click the Network Connections icon.
- 3. The Network Connections screen displays. Right-click Local Area Connection and choose Properties from the drop down list.



General Advanced Connect using Wt Computable Fast Element Adapter Configure The openation of the following later: Image: Configure Image: Configure Description Modelsk EVXSPX/LateBOS Computable Transport Protocol Image: Configure Description More your computer to access resources on the network. Storg toom in notification area when connected Notify ge when this connection has limited or no connectivity OK Cancell Storg toom in notification area when connected Votify ge when this connection has limited or no connectivity Description OK Cancell Storg toom in notification area when connected Votify ge when this connection has limited or no connectivity Description OK Click the Properties button. The Internet Protocol (TCP/IP) Properties screeen displays. "Toron are too have advanced advanced to final where too have a storg advanced to have advanced to final where too how advance advanced to final where too how advance advanced to final where too how advanced to final where too how advance advanced to final where too how a		Local Area Connection Properties
<image/>	G	eneral Authentication Advanced
W VA Compatible Fast Element / Adapter The openedic uses the following term:		Connect using:
<image/>		WW VIA Compatable Fast Ethernet Adapter Configure
Internet Protocol (TCP/IP) Properties Select Internet Protocol (TCP/IP) Properties button. The Internet Protocol (TCP/IP) Properties but		This connection uses the following items:
 Whitek PC/SPXAkeBOB Compatible Transport Produced Temmer Produced (TCP/IP) Temmer Produced (TCP/IP) Temmer Produced (TCP/IP) Temmer Produced (TCP/IP) Stelect Internet Protocool (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) Properties screeen displays. 		g "\$" NWLink NetBIOS ▲
**********Produce(TCP/IP) ************************************		WULink IPX/SPX/NetBIOS Compatible Transport Protocol
Install Popersis Install Popersis Allows your computer to access resources on the network. Shog toon in notification area when connected Shog toon in notification area when connective OK OK Cancel Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) Properties screeen displays. Internet Protocol (TCP/IP) Properties Visca yet P strings assigned adunatically / your network scientistics for fis- scientistic Visca yet P strings assigned adunatically / your network scientistics for fis- scientistic Up to thomage you need adunatically / your network scientistics for fis- scientistic Visca yet P strings assigned adunatically / your network scientistics for fis- scientistic Patternet Protocol (TCP/IP) Properties Spectra me Address extended at the blog to thomage adunatically / your network scientistics for fis- scientistic Visca we B dollarge manufacture Visca we B dollarge manufacture Patternet B dollarge manufa		C 3 Thermet Protocol (TCP/IP)
		Install Injectual Descention
Alone your computer to access resources on the network. Shore: common the connected Shore: your computer to access resources on the network. Shore: your computer to access resources on the network. Shore: your computer to access resources on the network. Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) Properties screen displays. Internet Protocol (TCP/IP) Properties General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General General G		Dascindon
Shore you in notification area when connected R Notify ge when this connection has limited or no connectivity OK Cancell Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) roperties screeen displays. Image: the project of the strengt availage databased of the support for support the screee of the support for support the support for support the support for support availage databased of the support availage databased of the support availage databased of the support for support availage databased of the support availage databased availage dat		Allows your computer to access resources on the network.
 Shore con in notification area when connected Notify ge when this connection has limited or no connectivity Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) properties screeen displays. 		
Notify grewhen this connection has limited or no connectivity OK Cancel Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) properties screeen displays. With the Protocol (TCP/IP) Properties OK Cancel Mage to below grewhen the score statements by Defend gatement Select materials Adge to below grow and statements by OK Cancel Adge to below grow and statements by Adge to below grow and statements		Show icon in notification area when connected
OK Cancel Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) properties screen displays. Image: Transformer Protocol (TCP/IP) Properties Image: Transformer Protocol (TCP/IP) Image: Transformer Protocol (TCP/IP) Image: Transformer Protocol (TCP/IP)		Votify me when this connection has limited or no connectivity
OK Cancel Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) Properties screen displays. Internet Protocol (TCP/IP) Properties OK <		
Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) properties screen displays. Internet Protocol (TCP/IP) Properties reading sessing a distantically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantatically / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your network separate fits reading for displays assigned advantation / your readvantatio		OK Cancel
 Select Internet Protocol (TCP/IP). Click the Properties button. The Internet Protocol (TCP/IP) Properties screen displays. Internet Protocol (TCP/IP) Properties ? ** * Vac as get P seling a signed automatically from taken's suggets this aspectation P seling. * Other B officer submatically * Use the States submatically		
Click the Properties button. The Internet Protocol (TCP/IP) Properties screen displays. Internet Protocol (TCP/IP) Properties Vector and Parting ansigned automatically Vector and Parting automatically Control of the biologing DVS server addresses System mak System for the biologing DVS server addresses Adgreese	•	Select Internet Protocol (TCP/IP).
Properties screen displays.	•	Click the Properties button. The Internet Protocol (TCP/IP
Internet Protocol (TCP/IP) Properties Image: Comparison of the comparison of the component of t		Properties screen displays.
General Yes can get P settings assigned automatically if your restork supports this capability. Of sense, you restor is supported to the support of the support of the setting is a support of the set is a support of the setting is a supp		Internet Protocol (TCP/IP) Properties
You can get P setting: assigned automatically Fyour network supports this capability. Of waters: your analysis of administrator for the supports of the Participant of the support		General
Copubly, Charace you reader, and your network administrator for the appropriate Parking:		You can get IP settings assigned automatically if your network supports this
C Chain an E Addass a Administrativ C Liga Bis following P address P 20098 Sighter mask C Chain Addition of the Administrative C Chain Addition DNS server: Befreed DNS server: Administration Ser		capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Grand Chill server: Advanced. Advanced. Advanced. Advanced. Advanced. Advanced. Advanced.		C Otto an Paddess automically
P Addres Sginne mask Default generation O Output ONS server addresses Default DNS server Adjenue DNS server	<	@ Upe the following IP address
Sybert mask: Default getrewy C Opport Chill environ addresses Default DNS server Advanced.		P-022411.
Cr System CHG renver address extensionly Cr System CHG renver addresses Parlemed DNS server: Attension DNS server: Adjuncted. Adjuncted.		Sybret mask
C Open Officerent address addresses Defend ONS server: Advanced.		Default sateway
G Usg Be biowing DNS server addesses Defend DNS server dismutia DNS server Adjanced Adjanced		
Defensed DNS server:		C Oppor ONI nerve satisfies automatically
Alternate DNS server		Count 241 provide and an analysis Oug the following DNS server addresses
Adyanced		Cogen Old rever address industrially Oug the following DNS server addresses Defend DNS server:
Adyanced		Country Diff rever matterns instantically G Using the following DMS server Defend DMS server
		C Super PUD rever reddress industrials/ G Usg the following DNS server addresses Defend ONS server: Abmats DNS server:
OK Cancel		C Copen DND rever reddress industriality G Usg the following DND server addresses Devlered DND server Adjanced.

Multi-Tech Systems, Inc. Quick Start Guide

5. On the Internet Protocol (TCP/IP) Properties screen complete the following:

Important: If this screen opens and displays your current IP configuration, we suggest you record this information for future reference (i.e., after the SMSFinder is configured, you may wish to return this PC to its original settings).

- To set a Fixed IP Address for the workstation, select Use the following IP address.
- * Enter the workstation **IP Address**. Example: 192.168.2.x. **Note**: The **x** in the address stands for numbers 101 and up.
- * Enter the workstation Subnet Mask. Example: 255.255.255.0
- * Enter the workstation Default Gateway. Ex: 192.168.2.2

Note: The workstation settings must be in the same subnet range as the SMSFinder.

The default factory settings for the SMSFinder are: IP Address: 192.168.2.1; Subnet Mask: 255.255.255.0; Default Gateway: 192.168.2.2

- Select Use the following DNS server addresses.
 - * Enter the IP Address of the **Preferred DNS Server.** Ex: 205.171.3.65
 - * Click OK.
- Close the Local Area Properties screen by clicking OK.
- Close the Control Panel.
- Repeat these steps for each PC on your network.

Obtain and Activate a Wireless Account

Before you can use the cellular feature, you must obtain a wireless account through a service provider and then activate the account. Please see the wireless account **Activation Notices** located on the SMSFinder CD. Choose the one for your wireless network provider and follow the directions to activate your account.

Important Note About Service Provider Fees

Your provider will charge you for your data usage. Please check with your provider to make sure you are aware of the charges. If you plan to use the router for large amounts of data transfers, Multi-Tech recommends an unlimited data plan with your account. Multi-Tech will not be responsible for any charges relating to your cellular bill.

Direct Communication to the Cellular Modem

You may want to communicate directly to the cellular modem to activate the modem, verify network registration, and/or troubleshooting your connection. To do this:

- 1. Open a PC's command window by clicking the **Start** button and selecting **Run**.
- 2. Type CMD to open the command window. Click OK.
- 3. When the command window opens, type IPCONFIG.
- 4. Type Telnet 192.168.2.1 5000 (Note: 5000 is the port number).

AT commands can be used to check network registration status. See the User Guide.

See the GPRS AT Commands Reference Guide and the GPRS-F4 Reference Guide for AT commands.

Start the SMSFinder

Open a Web Browser

- 1. Be sure that the SMSFinder is cabled and that the power is connected.
- 2. Then open a Web browser.
- Type the default gateway address line: http://192.168.2.1
 Type the default gateway address line: http://198.168.2.1
- 4. Press Enter.

Login

The Login screen for the SMSFinder Web Interface displays.

Login	
User Name	
Password	
	Login

- Type **admin** (*admin* is the default user name) in the user name box.
- Type **admin** in the password box.
- Click Login.

Note: The User name and Password entries are case-sensitive (both must be typed in lower-case). The password can be up to 12 characters. Later, you will want to change the password from the default (admin) to something else (see the User Guide). If Windows displays the AutoComplete screen, you may want to click No to tell Windows OS to not remember the password for security reasons.



11

Web Interface Opens

This is the Home screen from which you can access all setup functions. **Note:** Only the top portion of the Home screen is shown here.

mana	
	Administration Network Setup SHS Services Diggers Utilities Export & Export Address Rook Materica & Loge
	Hulp Hurror Witzerd Setup Laws & Restart Lags
	>> Horrow Page
Based Page	
	SMSEinder

See the User Guide for how to use the SMSFinder Web Interface.

Check to See if the SIM Card Is Installed Correctly and Activated

This following procedure will verify that the SIM is installed correctly and that it is activated.

- 1. Power up the SMSFinder. Wait until the Status LED and the LS LED are blinking before continuing. Make sure all setup procedures and connections have been made. See Chapter 2.
- 2. Open the Web browser, enter the IP address, and login to the SMSFinder. See Chapter 3.
- 3. Go to the Network Setup > Cellular Modem screen.

Network Setup >> Cellular Modern		
Nodem Initialization String		
Initialization String 1		
Initialization String 2		
Initialization String 3		Save
Signal Strength		
Command	AT+CSQ	Save
SIN Number		
SIM Number	6126361654	Save

• Enter the phone number of your SIM card. Example: 6126361654.

Multi-Tech Systems, Inc. Quick Start Guide

- Click the **Save** button.
- Click Save & Restart under the Menu Bar. Select Save.
- Note: You do not have to restart the SMSFinder.
- 4. Send a text message to yourself. Do this on the SMS Services > Send SMS screen.

To Enter Phone Numbers		Add 0120301054	Delete	
To Select Names from the Address Book	[Address book]	Add	Delete	Select the entire Address Book 🔲
To Select Groups	[Groups]	Add	Delete	Select all the Groups 🔲
SMS Text	add;SF100	[Pre-Configure	d Hessage]	

- To Enter Phone Numbers Enter the SIM phone and click Add. The phone number displays in the box to the right.
- SMS Text Enter an SMS Text message. The format add;SF100 is a trigger message word that tells the SMSFinder to add the phone number and name to the address book. Notice the use of the semicolon in this message.
- Click Send. The following message displays: Your request is being processed.
- Click OK.
- 5. Check the **Outbox** and you will see that the message was sent.

То	SMS	Date&time
6126361654	add;SF100	Tue 100 100 1 00000114 0000

6. Check the **Inbox** and you will see that the message was received. This verifies that the cellular modem is functioning.

SMS Services >> Inbox			
From	SMS	Date	Time
+16126361654	add;CF109	08/01/21	10:26:45-24

Note: Sometimes you may have to refresh this screen and wait several minutes for the cellular provider to deliver the message.

 Go to the SMS Services > Address Book. You will see the trigger SMS text message was processed and the name and phone number were added to the address book.

SHS Services	Services >> Address Book				
Name	Phone Number	Description	Edit	Delete	
SF100	+16126361654	Mister	0		
Add				Delete	
Starting with	Search				

Note: The phone number is entered with a "+1" in front of it. This indicates the phone number was entered into the address book using a trigger message.

Create a Broadcast Message for Future Use

In this example a school wants to be prepared to send a message that school is closed for the day. The Administrator creates a **Trigger Message** word **Snow** and the following **Broadcast Message**: **School is closed today**.

This example assumes that a **Group** called **Parents** has been created and that **SF100** stands for the Administrator's cell phone number.

Multi-Tech Systems, Inc. Quick Start Guide

1. Go to the Triggers > Add a Broadcast Trigger screen.

Triggers >> Add a throadcas	t Trigger
	Fields marked with * are mandatory fields.
Trigger Message	Snow
Broadcast Message	School is closed today.
То	Parents IGeouss (Relete)
Authenticate	
Authentic Users	SF100 Laddeese bookJ (Celete)
	Save Cance

- Enter **Snow** in the Trigger Message word box. Trigger message words or codes are not case-sensitive.
- Enter the Broadcast Message. In this case the message is School is closed today.
- Select the Group that will receive this message. In this case the group is *Parents*.
- Check the **Authenticate** box to indicate that this message can be sent by an authenticated user only.
- The Authentic User selected to trigger this message is *SF100*, the Administrator's cell phone.

Note: All phone numbers for Authenticated Users must be preceded by a "1" in the address book so the SMSFinder can match the phone number of the received SMS trigger message with the phone number in the Authenticated User list.

• Click **Save**. The following screen displays the Broadcast Message saved for future use.

Trigger Message		Broadcast Message	Authenticate	View/Edit	Delete
Snow	~	School is closed today.	Enabled	0	

2. To trigger the broadcasting of this message to the **Parent** group, the administrator sends the SMS text message word **Snow** from his cell phone to the SMSFinder. When the SMSFinder receives this message, it compares the Administrator's cell phone number with the Authentication List and if they match, it broadcasts the message to everyone in the **Parent** group.



82100360L