ISDN

Digital Set User's Guide

SRS-1050

National ISDN

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Delivering on the promise of ISDN

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U.S.A.

Part Number P-UG-105V-N
Revision 1.3

Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by unplugging the equipment to turn it off, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna of the affected receiver.
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment to an outlet on a circuit different from the one to which the affected receiver is connected.
- Consult a dealer or experienced radio or television technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Cable Notice: The use of standard shielded cables to connect external data devices is required to ensure compliance with FCC Part 15 Rules for Class B devices.

Preface

This guide provides descriptions and procedures for using Fujitsu's Digital Set Feature Phone, called the SRS-1050, when it is attached to a switch supporting National ISDN.

This guide is for anyone interested in using the SRS-1050 to gain the benefits of the combined voice and data network capabilities of ISDN technology.

Read the sections that follow for information on:

- Using this guide efficiently
- Special features of your ISDN telephone
- Background on ISDN technology

For assistance ordering ISDN service from your local service provider, see Appendix F.

HOW TO USE THIS GUIDE

This section can help you make the most efficient use of this guide. The section describes the overall organization, aids to finding information, and conventions.

Organization

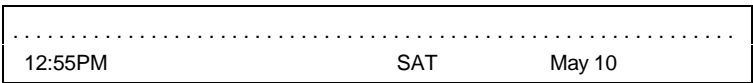This guide is organized in the following chapters:

Chapter 1	has illustrations to introduce the physical layout of the SRS-1050. It also describes the features and functions of its components.
Chapter 2	describes use of the basic voice services, such as placing and receiving calls and using the speaker/microphone (handsfree mode).
Chapter 3	explains how to set up SRS-1050 features such as one-touch buttons, unanswered call logging, and the calendar/clock.
Chapter 4	explains how to use the data terminal adapter to place or receive data calls.

Conventions and Layout

In procedures, the required actions are noted, with the buttons you press in capital letters, such as HOLD or REDIAL.

Other important words, such as messages that appear on the display, also appear in CAPITAL LETTERS.

Menus or screen displays appear as text in boxes.

```
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 12:55PM                         SAT              May 10
```

Actions that pertain to only a specific phone system have the following symbols inserted. These symbols appear in the section heading when the information applies entirely to that system, or they appear adjacent to a command where only a specific action applies to that system.

❘☎ **5ESS**❘..........................Required for Lucent Systems.

❘☎ **DMS-100**❘....................Required for Nortel Systems.

❘☎ **EWSD**❘........................Required for Siemens Systems.
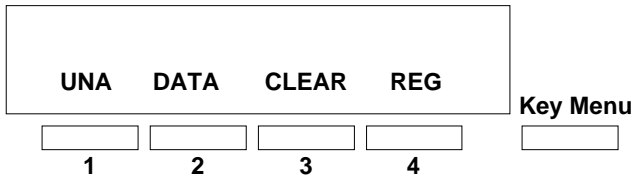
   NOTE: 5ESS, DMS-100, and EWSD are registered trademarks
                    of Lucent, Nortel, and Siemens Stromberg Carlson
                    respectively.

Helpful Tips About Your SRS-1050

Because ISDN technology is new, some features of your SRS-1050 may be unfamiliar.

Softkeys

The softkeys are the four keys located just below the display. When you press the KEY MENU button to their right, function labels appear on line 2 of the display.

```
┌─────────────────────────────────────┐
│                                      │
│                                      │
│   UNA    DATA    CLEAR    REG        │
│                                      │        Key Menu
│   ┌───┐ ┌───┐  ┌───┐   ┌───┐          ┌───┐
└───┴───┴─┴───┴──┴───┴───┴───┴─────────┴───┴──
      1     2      3       4
```

Standard Softkey Layout

(The DATA softkey label appears only if you have the data model.)

  Note: Softkey 1 also serves as the ENTER key (for entering
     information as indicated in this User Guide).

Softkeys are a way of simplifying the phone and still supporting the richness of ISDN features. These keys assume different functions depending on the feature you are using, thus avoiding the need for a large number of permanent function keys.

You can display the labels at any time without affecting the tasks you are performing. The labels do not, however, have to be displayed for these keys to work.

Timeouts

When you are setting up local features as described in Chapter 3, some of the data entry displays have built-in timers. If you do not enter information within six seconds, the display reverts to the menu for selecting the feature you were setting up. You must reselect the feature and start again.

Starting Over

If for any reason you become confused while setting up a local feature in menu mode, you can always press REG, softkey number 4, to return to the setup menus and start over.

Phone Operation

The following two features of ISDN phones may be different from what you are used to:

Dialing 9. When you dial for an outside line (usually by pressing 9), you do not hear a pause and a second dial tone. You can begin dialing the telephone number immediately.

Onhook dialing. You can dial a number before you get a dial tone. The number you dial appears on the display and remains there for three minutes. When you lift the handset and press an idle Call Appearance button, or press the SPEAKER button for handsfree mode, the phone initiates the call automatically.

ISDN CONCEPTS: INTEGRATED VOICE AND DATA

ISDN stands for Integrated Services Digital Network, which provides many voice and communication features. (The SRS-1050 data features, available with the optional data terminal adapter, are described in Chapter 4, "Data Operation".)

The basic ISDN service provides two 64,000 bits per second "B" channels for voice or data communications. Each B-channel can support circuit-switched or packet-switched data services. There is also one "D" channel, at 16,000 bits per second, for network signaling and packet-switched data service. The combination is often referred to as "2B+D", or the Basic Rate Interface (BRI).

Voice Features

The voice features of an ISDN telephone have several advantages:

- They allow your telephone to **handle multiple calls** simultaneously, receiving calls while keeping others on hold.
- They also permit a call coming in to a single directory number to **ring more than one** physical telephone. This feature facilitates call handling within a group.
- They provide **easy-to-use-access** to powerful features such as call conferencing and call transfer, to enhance your productivity.
- They allow the incoming directory number to be displayed if it is available.

Data Features

The optional data features of the SRS-1050 include the following capabilities:

- Communication on the D-channel using packet switching with an asynchronous RS-232 terminal at terminal speeds up to 19,200 bits per second.

- Communication on the B-channel using circuit switching with an asynchronous RS-232C terminal at speeds up to 38,400 bits per second.

In order to do data communications, your phone needs to be equipped with a data terminal adapter. The supporting network data features must also be assigned to the line.

Multipoint configurations

In older ISDN installations, most phone connections are point-to-point.
Each phone in a point-to-point configuration requires a separate line
into your building. However, most service providers now offer
multipoint configurations as a subscription option. In a multipoint
configuration, up to eight devices (digital sets and/or terminal adapters)
can be connected to a single line. For example, your company could
connect two digital sets and two data terminal adapters to a single line.
The two digital sets could each use one B-channel for voice
communication, and the data terminal adapters could use the D-channel
for packet-switched data calls. The DMS-100 switch allows only two B-
channel devices.

Multipoint operation goes on behind the scenes. The only time you
would be aware of it is if you get "blocked" from using a line. If more
than two users bid for the two B-channels at the same time, the message
B-CHANNEL BUSY appears. Talk to your System Administrator if you
get this message frequently.

SPID

For your SRS-1050 to work on a multipoint line, it must have a valid
Service Profile Identifier (SPID). The SPID number is usually entered
when the SRS-1050 is installed. So if your digital set already has a
SPID number, you don't have to reenter it. If you do need to enter a
SPID number, you can find out what it should be from your System
Administrator or service provider. For the procedure to enter a service
profile identifier, see Appendix A.

  CAUTION: Once the SPID number is entered, don't change it unless
    your System Administrator tells you to do so. Your SRS-1050 won't
    work without the correct SPID number. If the SPID number is
    wrong, the set displays the message SPID NG. (The message is
    redisplayed a second time if the data terminal adapter SPID is also
    invalid.) Enter the correct SPID number and you'll get the normal
    dial tone.

System Administrator

ISDN is very flexible in allowing businesses to customize how it works to meet their specific needs. This User's Guide refers you to your System Administrator if a customized option may have been chosen during installation.

Your System Administrator may be your phone company representative or a member of your telecommunications department.

Call Appearance Preference

The SRS-1050 allows you to specify which Call Appearance button it selects when you go offhook (lift the receiver or press SPEAKER). You have three choices:

- Primary line preference. The SRS-1050 always selects button number 1, the Call Appearance associated with your primary directory number.

- No preference. The SRS-1050 does not automatically select any Call Appearance button when you go offhook. You must press the button you wish to be connected to either before or after you go offhook.

- Ringing line preference. The SRS-1050 selects the Call Appearance button that is ringing with an incoming call. You are immediately connected to the call.

For more details about Call Appearance preference, see "Selecting CA Preference," in Chapter 3.

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