ISDN

Digital Set User's Guide

SRS-1050

National ISDN

Fujitsu

Delivering on the promise of ISDN

Fujitsu Network Communications, Inc.
4403 Bland Road, Somerset Park
Raleigh, NC 27609
U.S.A.

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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.

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This equipment complies with Part 68 of the FCC Rules. The FCC Part 68 Label is located on the bottom of the enclosure. This label contains the FCC Registration Number for this equipment. If requested, the FCC Registration Number and the following information must be provided to your telephone company.

If this telephone equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuous of service may be required. But, if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

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

Repairs to this equipment can only be made by the manufacturer or its authorized agents. If this equipment is causing harm to the telephone network, the telephone company may request that it be unplugged from the modular outlet until the problem has been corrected. To obtain repair service or warranty information, contact:

Technical Assistance Center
Fujitsu Network Communications, Inc.
4403 Bland Road, Somerset Park
Raleigh, NC 27609
Phone: (919) 790-2211 or 800-228-4736

FCC Warning

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

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 A.

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.

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

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

ï☎ **EWSD**ï.....Required for Siemens Systems.

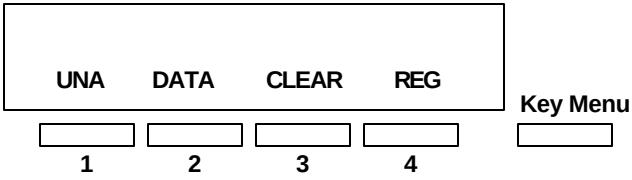
Note: 5ESS, DMS-100, and EWSD are registered trademarks of Lucent, Nortel, and Siemens Telecom Networks respectively.

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.



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.

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 B.

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 four 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.
- Idle preference. The SRS-1050 selects an idle Call Appearance.

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

TABLE OF CONTENTS

Section **Page**

Section **Page**

Notes

SRS-1050 Subject Index

Subject **Page**

Subject	Page

Notes

Notes

CHAPTER 1

GETTING ACQUAINTED WITH YOUR DIGITAL SET

This introductory chapter describes the set's parts, connectors, switches, and screen displays. It also explains how the functions and features operate. Chapter 2 explains how to use the set for basic telephone functions.

Digital Set Components

Figures 1-1 and 1-2 show, respectively, the front panel and the rear of the digital set. The major components of the SRS-1050 are labeled and described in the accompanying text.

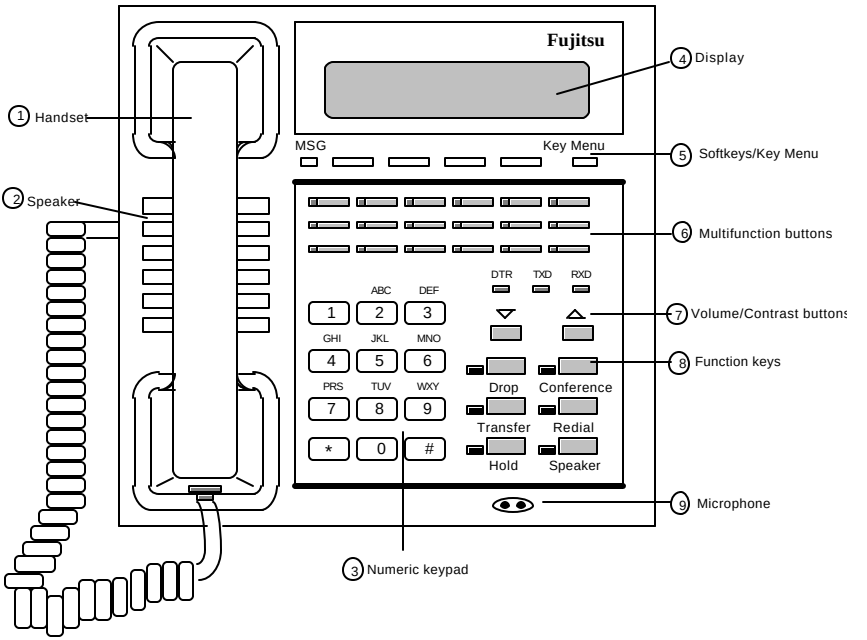


Figure 1-1: SRS-1050 Front Panel

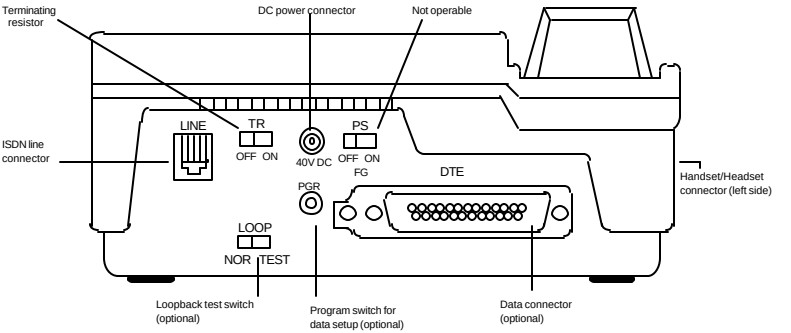


Figure 1-2: Digital Set Rear View

SRS-1050 Components

1) Handset/Headset. Use the familiar handset, the speaker and microphone, or a headset to make or answer calls.

2) 9) Speaker/Microphone. The speaker is located directly under the handset. In handsfree operation, it lets you hear the other parties on a telephone call. The microphone on the front edge of the front edge of the phone picks up your voice, unless switched off with the MIC-OFF key.

3) Numeric Keypad. You use these twelve keys to enter the number you are calling or the special characters *(asterisk) or #(pound sign).

4) Display. The display shows call information such as the telephone number of the other party, call duration, and time of day.

5) Softkeys/KEY MENU. Four buttons below the display with changeable functions. The KEY MENU key displays the current functions on line 2 of the display.

6) Multifunction buttons. These buttons are assigned to Call Appearances, one-touch numbers, or network features.

7) Volume/Contrast buttons. Increase or decrease display contrast (when no Call Appearance is active), or speaker volume (when a CA is active).

8) Function keys. Single-touch keys for ISDN features (see Function Keys).

Function Keys

The SRS-1050 has six function buttons. Three of these are permanently assigned to local functions: SPEAKER, HOLD, and REDIAL.

Permanent Functions

SPEAKER	Enables/disables handsfree operation
HOLD	Holds an active call
REDIAL	Redials the last number you dialed

For ease of installation, Fujitsu supports two sets of telephone company assignments for network based features. On the labeled function buttons for CONFERENCE, DROP, and TRANSFER, Fujitsu sets accept the following values or feature activators:

CONFERENCE	Button 18 Activator 18 or 60
DROP	Button 19 Activator 19 or 62
TRANSFER	Button 20 Activator 20 or 61

User-Assigned Functions

CONFERENCE
Adds parties to an existing call (Button 18, Activators 18 or 60)

DROP
Disconnects last party added to a conference call or disconnects a two-party call (Button 19, Activators 19 or 62)

TRANSFER
Transfers a call to a third party you dial or select (Button 20, Activators 20 or 61)

The multifunction button located in the upper right corner of the SRS-1050 button array, labeled "MIC-OFF", can serve as a One Touch button or a microphone control button. See Chapter 3 for more details about "MIC-OFF".

LED Indicators

Data Communications

DTR Data Terminal Ready

TXD Transmit Data

RXD Receive Data

Message Waiting

An LED labeled MSG, located on the front panel in the upper-left corner next to the softkeys.

Features

An LED next to each function key or feature button that lights when the feature is activated.

For Calls

An LED next to each button slowly flashes green for incoming calls, flashes red if a call is on hold at your phone, and is steady red when a call is active on your phone.

Switches and Connectors

The SRS-1050 has the following controls, connectors, switches, and indicators:

Terminating resistor. This built-in resistor, labeled "TR", provides a standard termination to the ISDN line.

DC power connector. This connector, labeled "40 V DC", provides an alternative to power delivered through the ISDN line.

Power source selection. This is not operable.

ISDN line connector. Use this RJ-45 connector to plug in the telephone line. Normally, the line also provides DC power for the set.

Handset/Headset connector. This jack, located on the set's left side, allows you to connect either a handset or a headset.

Loopback test switch. This locking switch, labeled "LOOP", places the set in loopback mode. Loopback is a test for data transmission.

Program switch for data setup. This switch, labeled "PRG", places the set in programming mode when you are setting up parameters for the data terminal adapter.

Data connector. This 25-pin female connector (DB25) appears only on sets with the data terminal adapter. This connector, labeled "DTE", is the interface connector for data transmission.

Volume and Contrast Controls

Both volume and display contrast are controlled by two buttons just above the front panel functions keys, and marked with a down arrow and an up arrow.

Speaker/handset volume. Adjust when any Call Appearance is active, with a call or dial tone. The new volume is held until reset.

Display contrast. Adjust any time the digital set is idle.

MULTIFUNCTION BUTTONS

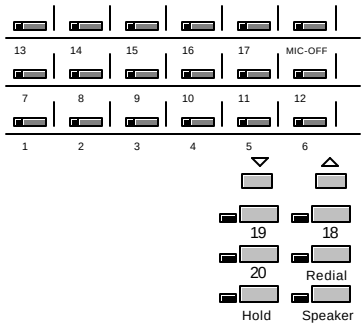


Figure 1-3: Multifunction Button Layout

Mulifunction buttons have three uses:

One-touch: Dial a number you stored there.

Network Feature: Activate or deactivate a special network feature, such as call forwarding.

Call Appearance (CA) or Directory Number (DN): Handle incoming or outgoing calls.

After a multifunction button is assigned, you must clear that assignment before it can be assigned as a different type of multifunction button. Chapter 3 describes making and clearing button assignments.

Using one-touch dialing buttons is described in Chapter 2. Chapter 3 shows how to set-up the buttons.

Special features, such as call forwarding, are provided by the ISDN network. These features are selected by your System Administrator and assigned to buttons on your phone during installation.

In order to simplify ordering and line installation, Fujitsu has included pre-set assignments for some of the most frequently used network based features. See Appendix A for these assignments.

You use Call Appearance (CA) or Directory Number (DN) buttons to handle your calls, as described in the next two sections. Pressing a Call Appearance button connects you to a phone line. This line can be idle with dial tone for making an outgoing call, a line containing an incoming call, or a call on hold.

The upper right button is normally used as a MIC-OFF function key, and is set this way when the unit is shipped. When pressed, the MIC-OFF key turns red and mutes the speaker or handset microphone, allowing you to hold a private conversation. See the section Activating the MIC-OFF key in Chapter 3 for the procedure to deactivate this feature. You can then reassign this button as a one-touch button or to some other local feature.

If you are on an active call, pressing a Call Appearance button automatically puts the call on hold. This feature is called autohold.

Multiple Directory Number Appearances

Each SRS-1050 associates its primary Directory Number with multifunction button 1. Multiple appearances of the same Directory Number are always on adjacent Call Appearance buttons. (The button at the end of a row is "adjacent to" the button beginning the next row up.)

Note: This guide uses the term directory number appearances to refer to directory numbers that appear on more than one Call Appearance button. The Nortel term for Call Appearances that can handle more than on call is Additional Functional Calls.

A telephone can also be assigned additional directory numbers. Each such number can then be assigned to adjacent buttons as well to allow multiple call handling on that line.

Any Directory Number assigned to one phone can also appear on another phone, which can then share the use of that line.

Figure 1-4 shows an SRS-1050 whose primary Directory Number is 747-3456, with two additional Call Appearance buttons assigned that same number. The telephone's secondary line is 747-7890, which has two appearances.

In the illustration, this set also has a button assigned to the number 747-3482. This could, for example, be a shared line using someone else's primary Directory Number.

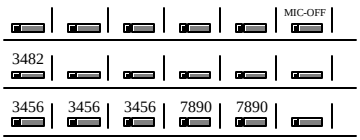


Figure 1-4: Example Line Assignment

Call Handling Example with Multifunction Buttons

Suppose your Directory Number is 747-3456, and the first three multifunction buttons on your SRS-1050 have been assigned that number.

What does it mean to have three Call Appearance buttons assigned to one directory number? It means you can have up to three calls at the same time using that single Directory Number, though you can talk on only one at a time.

For example, if you have no calls in progress and someone dials 747-3456, your telephone rings and the LED for the first Call Appearance button associated with 747-3456 flashes green. You can answer the call by pressing that Call Appearance button and picking up the handset. (The LED turns steady red.)

After answering the call, you can press the second 747-3456 Call Appearance button to originate another call. The first call is automatically put on hold. If another call comes in, you can press the third Call Appearance button representing 474-3456 to answer the third call. The second call is also placed on hold.

You would then have three calls on your 747-3456 Directory Number. Only then is your 3456 number "busy", that is, when all three assigned Call Appearance buttons are in use.

CALL INFORMATION DISPLAYS

1=747-3456	(Line 1)
12:55PM TUE MAY 5	(Line 2)

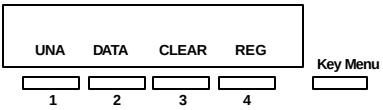
When you make a call, the number you dialed, including any prefix, appears on line 1 of the display, along with an ISDN Call Identifier (ICI) code if provided at your installation. (See Appendix D for a partial list of ICI codes.) For an incoming call, the calling party's number appears if the network supplies the digital set with the Calling Line ID (CLID).

When your party answers, the call duration timing is shown as minutes and seconds. This timer will record for an hour, up to 59:59, and then it restarts at 00:00. If the call cannot go through, line 2 shows a message such as "BUSY" or "NOT ANSWERED".

MM	(Line 1)
SS	(Line 2)

SOFTKEYS AND KEY MENU

When you press KEY MENU, line 2 of the display changes to the names for the four keys directly below the display. These keys are called softkeys because the functions they control change as you use the menus to set up different features. When you press KEY MENU from the standard display screen, you see the following screen:



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).

These softkey functions are explained in the following chapters:

UNA	Chapter 2
DATA	Chapter 4
CLEAR	Chapter 3
REG	Chapter 3
ENTER	Chapter 3

Other names and functions for these keys are explained in various contexts throughout the text.

TOC

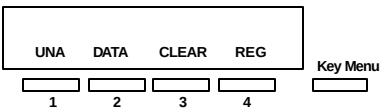
INDEX

CHAPTER 2

INTRODUCTION TO VOICE FEATURES

The Fujitsu SRS-1050 provides superior call-handling and simultaneous voice/data communications. It is one of the family of Fujitsu Integrated Services Digital Network (ISDN) terminals.

For the familiar tasks of dialing, holding, and answering calls, this phone operates like others you have used. However, it also includes the many special features explained in later chapters.



Standard Softkey Layout

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

PLACING AND RECEIVING CALLS

This section describes how to make and answer calls with your SRS-1050 using the handset, speaker, or a headset. (Headset setup is described in Chapter 3.) Each of the set of directions listed below has two subsections: what to do if you are not talking on another call, and what to do if you are talking on another call.

- Switching between handset and handsfree modes
- Placing a call using the handset
- Receiving a call using the handset
- Placing a handsfree call
- Receiving a handsfree call
- Placing a call using the headset
- Receiving a call using the headset

To make the best of handsfree mode, you should be sure that the MIC-OFF key feature is active on the button at the upper-right of the array. This feature is set active by default when you receive your SRS-1050. If for some reason this feature is not active, see “Activating the MIC-OFF Key” in Chapter 3 for the activation procedure.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

Switching between Handset and Handsfree Modes

If you are using the handset and want to use handsfree mode

Note: These procedures assume that the phone is set to ringing line preference or primary line preference.

1. Press SPEAKER and then replace the handset in its cradle. You now hear the other parties on the call through the speaker.

2. If the MIC-OFF LED is red, the microphone has been turned off. Press MIC-OFF to turn it back on (the LED goes dark). The microphone now picks up your voice.

3. You can turn off the microphone by pressing MIC-OFF, allowing you to hold a private conversation with others in the room. Pressing MIC-OFF again turns the microphone back on.

Note: If the MIC-OFF feature is not active on the upper right corner multifunction button, the microphone is always on.

If you are using handsfree mode and want to use the handset

Pick up the handset. Your call continues without interruption. The handsfree speaker and microphone are turned off.

Placing Handset Calls

If you are not talking on another call

1. Pick up the handset. This should automatically give you a dial tone, if not press an idle Call Appearance (CA).

   - If this connects you with a ringing call, follow the procedure described in the next section.
   - If you want to place the call from a Call Appearance other than the one automatically selected, press its CA button.

2. Dial the desired number by pressing the keys on the numeric keypad.

3. If your call is not answered, you can hang up as follows:

   a. Replace the handset in its cradle.

   or

b. Press the button in the handset cradle to get a dial tone.

4. If your call is answered, converse with the called party.

5. When your conversation ends, hang up by replacing the handset in its cradle. Note the displayed call duration; it vanishes after about three seconds.

Note: *Onhook dialing*. In place of steps 1 and 2, you can dial the number first and then pick up the handset. The phone automatically dials the number. The number you enter remains available for dialing for about three minutes.

You can also use a one-touch button, which automatically selects an idle CA and dials the number. Steps 1 and 2 are therefore unnecessary when you use a one-touch button. Once the call is dialed, you can pick up the handset.

If you are already talking on another call

1. Handle the active call in one of the following ways:

   a. End the call by pressing the button in the handset cradle to get a dial tone. (You can also hang up the handset and pick it up again.)

or

b. Retain the call by pressing an idle Call Appearance button to get a dial tone. (The call is automatically put on hold.)

2. To make your call, dial the desired number by pressing the keys on the numeric keypad.

3. If your call is not answered, you can hang up as follows:

a. Replace the handset in its cradle.

or

b. Press the button in the handset cradle to get a dial tone.

4. If your call is answered, converse with the called party.

5. When your conversation ends, you have these choices:

- Hang up by replacing the handset in its cradle. Note the displayed call duration; it vanishes after about three seconds.

- If you put your original call on hold, pick up the call by pressing its red-flashing Call Appearance button.

Note: You can also use a one-touch button after handling the active call. This automatically dials the number. Skip step 2.

Receiving Handset Calls

An incoming call makes the phone ring and the Call Appearance's LED flash green.

If you are not talking on another call

1. Pick up the handset. (Press the ringing CA if necessary.) The LED changes to steady red.

2. Converse with the calling party.

3. When your conversation ends, hang up by replacing the handset in its cradle. Note the displayed call duration; it vanishes after about three seconds.

If you are already talking on another call

1. Handle the active call in one of the following ways:

a. End the call by pressing the button in the handset cradle. Then press the green-flashing Call Appearance button to answer the incoming call.

or

b. Retain the call by pressing the green-flashing Call Appearance button to answer the incoming call. (The first call is automatically put on hold.)

2. Converse with the calling party.

3. When your conversation ends, you have the following choices:

   - Hang up by replacing the handset in its cradle. Note the displayed call duration; it vanishes after about three seconds.
   - If you put your original call on hold, pick up the call by pressing its red-flashing Call Appearance button.

Placing Handsfree Calls

A handsfree call uses the integrated microphone and speaker instead of the handset.

If you are not talking on another call

1. Press the SPEAKER button. Its LED will light red (if not, press an idle Call Appearance) and you will hear a dial tone. (If this connects you with a ringing call, follow the procedure "If you are already talking on another call".)

2. Dial the desired number by pressing the keys on the numeric keypad.

3. If your call is not answered, press SPEAKER and hang up.

4. If your call is answered, converse with the called party. (If the MIC-OFF LED is red, the microphone has been turned off. Press MIC-OFF to turn it back on.)

You can turn off the microphone by pressing the MIC-OFF button; its LED will turn red. No sound will then be transmitted to the called party, allowing you to hold a private conversation with others in the room. To turn the microphone back on, press MIC-OFF again; its red LED will go dark.

5. When the conversation is over, hang up by pressing the SPEAKER key. Note the call duration; it vanishes after about three seconds.

Note: *Onhook dialing.* In place of steps 1 and 2, you can dial the number first and then press SPEAKER. The phone automatically dials the number. The number you enter remains available for dialing for about three minutes.

You can also use a one-touch button, which automatically selects handsfree operation on an idle CA and dials the number. Steps 1 and 2 are therefore unnecessary when you use a one-touch button.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

If you are already talking on another call

1. Handle the active call in one of the following ways:

   a. End the call by pressing SPEAKER. Then press SPEAKER again to get a dial tone.

   or

   b. Retain the call by pressing an idle Call Appearance button, which gives you a dial tone. (The call is automatically put on hold.)

2. Dial the desired number by pressing the buttons on the numeric keypad.

3. If your call is not answered, you can:

   a. Hang up by pressing the SPEAKER button.

   or

continued

b. Retrieve the original call, if it was held, by pressing its red-flashing Call Appearance button.

4. If your call is answered, converse with the called party. (If the MIC-OFF LED is red, the microphone has been turned off. Press MIC-OFF to turn it back on.)

   You can turn off the microphone by pressing the MIC-OFF button; its LED will turn red. No sound will then be transmitted to the called party, allowing you to have a private conversation with others in the room. To turn the microphone back on, press MIC-OFF again; its red LED will go dark.

5. When the conversation is over, hang up by pressing the SPEAKER button.

You can pick up the call you were originally talking on, if it was held, by pressing the button next to its red-flashing Call Appearance.

Note: *Onhook dialing.* In place of steps 1 and 2, you can dial the number first and then press SPEAKER. The phone automatically dials the number. The number you enter remains available for dialing for about three minutes. You can also use a one-touch button, after handling the existing call. This automatically selects handsfree operation on an idle CA and dials the number. Skip step 2.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

Receiving Handsfree Calls

A handsfree call uses the integrated microphone and speaker instead of the handset. An incoming call makes the phone ring and the Call Appearance's LED flash green.

If you are not talking on another call

1. Press SPEAKER and, if necessary, the green-flashing Call Appearance button.

2. Converse with the calling party. (If the MIC-OFF LED is red, the microphone has been turned off. Press MIC-OFF to turn it back on.)

   You can turn off the microphone by pressing the MIC-OFF button; its LED will turn red. No sound will then be transmitted to the called party, allowing you to have a private conversation with others in the room.

To turn the microphone back on, press MIC-OFF again; its red LED will go dark.

3. When your conversation ends, hang up by pressing SPEAKER. Note the call duration; it vanishes after about three seconds.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

If you are already talking on another call

1. Dispose of the active call in one of the following ways:

   a. End the call by pressing SPEAKER. Then press SPEAKER and if necessary, press the green-flashing Call Appearance button to answer the incoming call.

   or

   b. Retain the call by pressing the green-flashing Call Appearance button to answer the incoming call. (The first call is automatically put on hold.)

2. Converse with the calling party. (If the MIC-OFF LED is red, the microphone has been turned off. Press MIC-OFF to turn it back on.) You can turn off the microphone by pressing the MIC-OFF button; its LED will turn red. No sound will then be transmitted to the called party, allowing you to have a private conversation with others in the room. To turn the microphone back on, press MIC-OFF again; its red LED will go dark.

3. When your conversation ends, hang up by pressing SPEAKER. Note the displayed call duration; it vanishes after about three seconds.
4. You may then pick up the call you were originally talking on, if it was held, by pressing its red-flashing Call Appearance button and then pressing SPEAKER.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

Placing Headset Calls

If you are not talking on another call

Place the headset on your head in a position comfortable for hearing and talking. If necessary, unplug the handset from the jack on the phone's left side. Plug the headset into the same jack. Also check that headset mode is activated. (See Chapter 3 for details.) The handset, speaker, and microphone will be disabled. All dialing tones and telephone conversation will be audible only through the headset. Your voice and any other transmitted sounds will go through the headset microphone only.

1. Press SPEAKER. Its LED will light red and you will hear a dial tone. (If this connects you with a ringing call, follow the procedure described in Receiving Headset Calls.)

2. Dial the desired number by pressing the buttons on the numeric keypad.

3. If your call is not answered, press SPEAKER to hang up.

4. If your call is answered, converse with the called party.

5. When your conversation ends, hang up by pressing SPEAKER. Note the call duration; it vanishes after about three seconds.

Note: *Onhook dialing.* In place of steps 1 and 2, you can dial the number first and then press SPEAKER. The phone automatically dials the number. The number you enter remains available for dialing for about three minutes.

You can also use a one-touch button, which automatically selects an idle CA and dials the number. Steps 1 and 2 are therefore unnecessary when you use a one-touch button.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

If you are already using the headset and talking on another call

1. Handle the existing call in one of the following ways:

   a. End the call by pressing SPEAKER. Then press SPEAKER again to get a dial tone.

   or

b. Press an idle Call Appearance button to get a dial tone. The call is automatically put on hold.

2. Dial the desired number by pressing the keys on the numeric keypad.

3. If your call is not answered, hang up by pressing the SPEAKER button.

4. If your call is answered, converse with the called party.

5. When the conversation is over, hang up by pressing SPEAKER. Note the displayed call duration; it vanishes after about three seconds.

6. You can pick up the call you were originally talking on, if it was held, by pressing SPEAKER, and if necessary its red-flashing Call Appearance button.

Note: *Onhook dialing.* In place of steps 1 and 2, you can dial the number first and then press SPEAKER. The phone automatically dials the number. The number you enter remains available for dialing for about three minutes.

You can also use a one-touch button after handling the existing call. This automatically selects an idle CA and dials the number. Skip step 2.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

Receiving Headset Calls

An incoming call makes the Call Appearance's LED flash green.

If you are not talking on another call

Place the headset on your head in a position comfortable for hearing and talking. If necessary, unplug the handset from the jack on the phone's left side. Plug the headset into the same jack. Also check that headset mode is activated. (See Chapter 3 for details.) The handset, speaker, and microphone will be disabled. All dialing tones and telephone conversation will be audible only through the headset. Your voice and any other transmitted sounds will go through the headset microphone only.

1. Press SPEAKER, and if necessary, press the green-flashing Call Appearance button.

2. Converse with the calling party.

3. When your conversation ends, hang up by pressing SPEAKER. Note the displayed call duration; it vanishes after about three seconds.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

If you are already using the headset and talking on another call

1. Dispose of the active call in one of the following ways:

   a. Hang up by pressing the SPEAKER. Then press the green-flashing Call Appearance button to answer the incoming call.

   or

   b. Retain the call by pressing the green-flashing Call Appearance button to answer the incoming call. (The first call is automatically put on hold.)

2. Converse with the calling party.

3. When your conversation ends, hang up by pressing SPEAKER. Note the displayed call duration; it vanishes after about three seconds.

4. You may then pick up the call you were originally talking on, if it was held, by pressing its red-flashing Call Appearance button and then pressing SPEAKER.

(See also "Handsfree, Handset, and Headset Modes", in Chapter 3, "Local Features".)

FUNCTION BUTTONS

The SRS-1050 has six function buttons, located to the right of the numeric keypad.

Three buttons are permanently assigned to local functions (REDIAL, HOLD, and SPEAKER) and the other three buttons are multifunction buttons you can assign to any feature, one-touch button, or Call Appearance.

For ease of operation, Fujitsu supports two sets of telephone company assignments for network based features. On the labeled function buttons for CONFERENCE, DROP, and TRANSFER, Fujitsu sets accept the following values or feature activators:

CONFERENCE	Button 18 Activator 18 or 60
DROP	Button 19 Activator 19 or 62
TRANSFER	Button 20 Activator 20 or 61

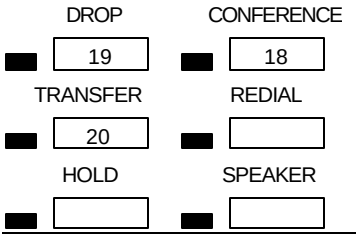


Figure 2-1: Function Buttons

As a brief overview, the keys do the following:

SPEAKER
Enables/disables handsfree operation

REDIAL
Redials the last number you dialed

HOLD
Holds an active call

CONFERENCE
Adds additional parties to an existing call

DROP
Disconnects last party added to a conference call

TRANSFER
Transfers a call to a third party you dial or select

Another function key, MIC-OFF, (described later) is typically active on the multifunction button at the upper-right of the multifunction button array. This key turns the microphone on or off during handsfree operation.

The descriptions below briefly identify each function button. The following pages explain the buttons in more detail.

REDIAL

Dials the last number dialed on this phone

This feature is useful if you need to call someone back a second time, perhaps because their line was busy the first time.

Using REDIAL before lifting the handset or pressing SPEAKER

1. Press REDIAL. The last number dialed appears on the display and is redialed automatically in handsfree mode. Pick up the handset if you want this to be a handset call.

2. If there are no idle Call Appearances available, pressing REDIAL brings the number to the screen but does not dial. When an idle Call Appearance later becomes available, pressing the CA button dials the number in handsfree mode. (Lift the handset, if you prefer.)

Using REDIAL after lifting the handset or pressing SPEAKER

1. If you don't hear a tone, press an idle Call Appearance button.

2. Press REDIAL. The last number dialed appears on the display and is dialed automatically.

HOLD

Retains connection with an existing call until you can return to it

HOLD lets you keep a call active even though you are no longer directly connected with it. This feature is useful if you need to perform some action away from your phone, such as looking up some information.

The autohold feature automatically puts an active call on hold whenever you press another Call Appearance. You can also press HOLD to manually put a call on hold.

1. To use hold, press HOLD while you have an active call in progress. The Call Appearance LED changes from steady red to flashing red.

2. To use another Call Appearance or feature button, press it. The phone retains each call you place on hold until you reconnect with it (or the other party hangs up). You are now free to take other actions, including making and receiving other calls.

3. To reconnect with a call on hold, press its flashing Call Appearance button. Its LED changes from flashing red to steady red, and you are reconnected in handsfree mode. (You can use the handset, if you prefer, by lifting it.)

CONFERENCE

Telephone conferences with multiple participants

Conference is a network-based feature that you must subscribe to from your telephone company. This description assumes that you have assigned the Conference feature to one of your SRS-1050 function buttons.

The number of conference call participants allowed depends on the number specified when you subscribe to the feature. Ask your System Administrator how many participants are allowed on your Conference feature.

Setting Up a Conference Call

After establishing the initial call, add participants to the conference call by following these steps:

1. Press CONFERENCE.

   The CONFERENCE button lights up. The initial call is placed on hold, and the next available CA is selected.

2. Dial the number of the person you want to add to the conference.

   or

   Select any CA that is ringing or on hold.

   - If the person answers, you can talk privately before joining the conference.
   - If the line is busy or the person does not answer, press DROP. Then press the flashing Call Appearance button to return to the initial call.
   - To retain the second party without having a conference, press HOLD and then press the flashing Call Appearance. This allows you to speak to the initial caller while keeping the second call on hold. To make this a Conference call, press the CONFERENCE button and go to step 3.

3. Press CONFERENCE.

   The CONFERENCE button stays lit to indicate that a conference call is in progress.

   If you have a conference feature for more than three parties, you may add more participants to the conference, repeating the preceding three steps as many times as required up to the maximum number of participants.

   To add more participants to the conference, repeat the preceding three steps as many times as required up to the maximum number of participants.

Dropping Other People from a Conference Call

To drop the last person added, either press DROP or ask the last person added to hang up.

Pressing DROP when only two participants are connected disconnects the call.

Dropping Out of the Conference Call Yourself

Some installations leave the other conference participants connected if you disconnect. Ask your System Administrator whether your Conference feature works this way.

Otherwise, when you disconnect, all other conference participants are disconnected also.

DROP

Cancels connection with the last party added to a conference call or disconnects call if only two participants are connected (5ESS)

Drop is a network-based feature that you must subscribe to from your telephone company. This description assumes that you have assigned the Drop feature to one of your SRS-1050 function buttons.

Pressing DROP at the end of a regular call does nothing. ï ☎ **DMS-100**ï

Pressing DROP at the end of a regular two-party call disconnects the call. ï☎ **5ESS**ï

During a conference call, the DROP feature allows the originator of the call to drop the last participant added. Other participants can drop out of the call simply by hanging up.

You can use the DROP button repeatedly until you have dropped everyone but the participant of the original two-party call. To end the call, hang up normally. ï☎ **DMS-100**ï

Warning: Pressing DROP at the end of a conference call drops both participants.

Using DROP on a Conference Call

Press the DROP button. This ends your connection with the last party you added to the call, but any others on the call stay connected. If only two parties remain, the call is disconnected.

The display of the call's duration continues until the call is over.

TRANSFER ï☎ **5ESS**ï

Transfers a call to another phone and announces the transfer privately

To transfer a call, follow these steps:

1. Press TRANSFER while on an active call.

   The LED of the Call Appearance in use flashes red; the called or calling party is automatically placed on hold.

   An idle Call Appearance is selected. Its LED lights steady red and a dial tone sounds.

   If that directory number has no idle Call Appearance, you must select a Call Appearance of another directory number.

2. Dial the third party.

3. Once connected, announce the transfer to the person who answers and converse privately.

4. Press TRANSFER again, and hang up.

   The third party, just called, is connected to the party held for transfer. You are dropped from the call, and the other two parties remain connected.

Note: A "blind" transfer is one in which you do not talk to the person you are transferring the call to. To perform a blind transfer, wait for the person's phone to ring, press the TRANSFER key, and hang up.

Questions, Details, or Alternatives

If no one answers the destination number, hang up. Press the SPEAKER button, the Switch Hook, or, with a Lucent switch, press DROP. Then press the Call Appearance holding the original call. This cancels the attempted transfer and returns you to the call.

TRANSFER ï☎ DMS-100ï

Transfers a call to another phone and announces the transfer privately

Transfer is a network-based feature that you must subscribe to from your telephone company. This description assumes that you have assigned the Transfer feature to one of your SRS-1050 function buttons.

Note: In some installations, transferring calls is accomplished without a TRANSFER button. If your set lacks a TRANSFER button, ask your System Administrator how to transfer a call.

To transfer a call, follow these steps:

1. While still on the call, press TRANSFER.

The TRANSFER button indicator lights up.

The call is put on hold and its Call Appearance indicator flashes red.

2. An idle CA/DN is selected. Dial the number of the person you want to transfer the call to.

   - If the person answers, you can talk privately before completing the transfer. To place this person on hold without transferring the call, press HOLD. To reconnect with this person, press the DN or CA button.
   - If the line is busy or the person does not answer, press the button in the handset cradle (press SPEAKER if you are using handsfree mode). Then press the flashing Call Appearance button to return to the original call.

   Note: To do a "blind" transfer, where you do not talk to the person you are transferring the call to, wait for the person's phone to ring, press the TRANSFER button, and hang up.

3. You can complete the transfer these two ways:

   a. After announcing the transfer, just press TRANSFER and hang up.

   or

   b. To allow all three parties to talk together, press the flashing Call Appearance button again; then press TRANSFER when you want to drop out.

4. Hang up the handset, or, in handsfree mode, press SPEAKER.

You are disconnected from the call, leaving the other two parties connected.

TRANSFER ï☎ EWSDï

Transfers a call to another phone and announces the transfer privately

Transfer is a network-based feature that you must subscribe to from your telephone company.

Note: In Siemens installations, transferring calls is accomplished without a TRANSFER button.

To transfer a call, follow these steps:

1. Answer the incoming call, then while still on the call, press CONFERENCE.

The CONFERENCE button indicator lights up.

2. An idle CA is selected. Dial the number of the person you want to transfer the call to.

The call is put on hold and its Call Appearance indicator flashes red.

- If the person answers, you can talk privately before completing the transfer. To place this person on hold without transferring the call, press HOLD.

- If the line is busy or the person does not answer, press the button in the handset cradle (press SPEAKER if you are using handsfree mode). Then press the flashing Call Appearance button to return to the original call. To make this a conference call, press the CONFERENCE button and go to step 3.

3. Hang up the handset, or, in handsfree mode, press SPEAKER.

You are disconnected from the call, leaving the other two parties connected.

ONE-TOUCH CALLING

Pressing a one-touch button causes the phone to dial the stored number just as if you were pressing the keys on the numeric keypad. (Chapter 3 explains how to set up one-touch buttons.)

Using a One touch Button to Make a Call

Just press it. If no other call is active, the SRS-1050 selects an idle Directory Number, turns on the speaker and microphone, and dials the number. (If the MIC-OFF LED is red, the microphone has been turned off, so press MIC-OFF to turn it back on.)

If you already have a dial tone, then pressing the one-touch button plays back the stored number as if you were dialing.

Dialing Special Codes Using One-touch Buttons

The one-touch feature provides two ways of supplying special codes such as credit card numbers, passwords, personal ID numbers, and voice mail access codes. You can store a code on its own one-touch button or you can include special codes as part of a single one-touch number.

Storing a Code on a One-touch Button

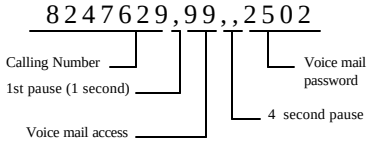
You can store a special code on its own one-touch button just as you do an ordinary telephone number. Once you establish an active call, you can press the one-touch button to send the special code. These numbers are sent using the standard DTMF tones that these systems normally require.

Including Codes in a One-touch Number

You can code both telephone numbers and one or more special code numbers on a single one-touch button, with appropriate pauses between numbers to allow for system response. You can code up to 30 digits, with each pause character counting as one digit.

The following example illustrates the sequence for accessing voice mail. The SRS-1050 sends the numbers up to the first pause, represented by a comma, as an out-of-band, D-channel call request. When the call connects, the digital set waits one second and then begins sending the additional numbers as tones on the B-channel, with a two-second pause for each comma.

In the example, the digital set sends the voice mail access code, pauses for two seconds while the system switches to voice mail, and then sends the caller's voice mail password.



Use this feature for any call requiring multiple number entry. For example, use the feature to:

- Connect to an alternative public network using the access number and then send the number of the person you want to call
- Send the sometimes complicated sequence of numbers needed to connect to a private network number
- Navigate your way through a call answering system that requires you to respond to a number of voice menu options

UNANSWERED CALL LOGGING (UNA)

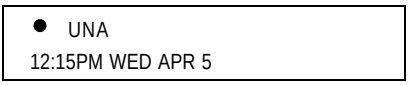
Once enabled, this feature records information about incoming calls that were not answered at this phone.

The UNA feature records information from the eight most recent unanswered calls, showing the date, the time, and the telephone number and name (if provided) of the calling party. The ninth and later unanswered calls replace the first, second, and so forth, in order, so that your UNA list always has the eight most recent calls. If the caller gets a busy signal, the call is not considered "unanswered". Multiple calls from the same number are listed only once.

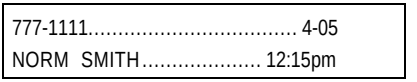
Chapter 3 explains how to program your phone to support or suppress the UNA feature.

Using the UNA Feature

If you have unanswered calls, a black dot appears next to the word UNA on line 1 of your SRS-1050 display. If the dot is blinking, there have been eight or more such calls, and the information from the next unanswered call will record over the oldest call in the list.



To see the data for each unanswered call, press UNA (softkey 1). The resulting screen looks something like this:



The 777-1111 is the number of the calling party. Norm Smith is the calling party identification.

Each time you press UNA (softkey 1), the data for the next unanswered call is displayed. The list cycles: the first display is information from the oldest call, then the next oldest call, and so forth. After the data for the most recent unanswered call is displayed, pressing UNA again shows the oldest call's data.

If a new unanswered call is from the same party as one already in the UNA list, only the new call's data is retained. This feature prevents filling all eight available positions with calls made from the same number.

Each record is retained until you follow the deletion procedure described below, or until another unanswered call stores new information over it.

Returning a Call

To return a call displayed by unanswered call logging, follow these steps:

1. Press any idle Call Appearance button. (Handsfree mode is automatic. For handset use, lift the handset.)

   You can also dial the number while onhook, and then lift the handset or press SPEAKER after dialing all the digits.

2. Dial the number shown on the UNA display.

   As soon as you go offhook or begin dialing the number while onhook, the unanswered call number shifts to the second line for reference. The first line shows the digits you are dialing.

   If the call is answered, you can converse with the party reached. If not, hang up by replacing the handset in its cradle or, in handsfree mode, hang up by pressing the SPEAKER button.

   If the UNA dot on the display is flashing, you should delete at least one entry to prevent the loss of the oldest entry.

Deleting a Record from the UNA-LIST

To delete a record, press UNA (softkey 1) until the record is displayed, and then press # and CLEAR (softkey 3). To see or delete the next UNA record, you must press UNA again.

Notes

TOC

INDEX

CHAPTER 3

LOCAL FEATURES

This chapter explains how to use the display and softkeys to set the features controlled by the SRS-1050. The first section describes menu mode, from which you make all changes to local features. Subsequent sections describe how to set each feature, in the following order:

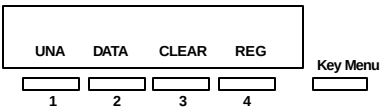
- Programming one-touch buttons
- Setting the calendar/clock
- Reinitializing the phone
- Enabling unanswered call logging (UNA)
- Selecting handsfree (speaker), handset, or headset operation
- Setting ringer volume, tone, and operating modes
- Using Call Announce Intercom
- Activating or deactivating the MIC-OFF button
- Choosing an option for how the SRS-1050 selects a Call Appearance button when you go offhook

Note: Options 8 (SPID/TEI) and 10 (KEY-ATTR) in menu mode are installation functions usually performed by your System Administrator or phone maintenance personnel. These options are explained in Appendix B.

MENU MODE OPERATIONS

The SRS-1050 has a menu from which you select options to change SRS-1050 local features.

Note: The procedures to set local features require extensive use of the softkeys located below the display. To see the names of the softkeys, press KEY MENU. The names appear on the second line of the display above the keys. Press KEY MENU again to redisplay the information displaced by the softkey labels. You can use the softkeys any time, whether or not the names are showing.



Standard Softkey Layout

Some of the data entry screens in menu mode procedures have built-in timers. If you do not enter information within six seconds, the display reverts back to the menu for selecting the feature you were using. You must reselect the feature and start over.

If for any reason you become confused while working in menu mode, you can always press REG (softkey 4) to return to the menus and start over.

Selecting a Menu Option

You can display and choose among the thirteen menu options at any time, as follows:

1. Press REG (softkey 4) to display the menu options. The screen looks like this:

```
1:ONE-TOUCH      2:CALENDAR
3:INITIAL          (SELECT 1-13)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:UNA            5:H-FREE
6:HAND/HEAD  (SELECT 1-13)
```

Press NEXT again to see the third menu:

```
7:RINGER         8:SPID/TEI
9:MSG-LOG      (SELECT 1-13)
```

Press NEXT again to see the fourth menu.

```
10:KEY-ATTR      11:I-COM
12:MIC-OFF       (SELECT 1-13)
```

Press NEXT again to see the fifth and final menu.

```
13: PREF
                 (SELECT 1-13)
```

Note: Older versions of this digital set may display fourteen menu items as follows:

```
13: SPEAKER-VOL      14:PREF
                   (SELECT 1-14)
```

Press NEXT repeatedly to cycle through these five menus.

2. To select the option you want, press the appropriate key(s) on the numeric keypad to dial 1 to 13 (do not press one of the four buttons under the screen) and then press ENTER (softkey 1). If you notice a mistake after pressing ENTER and want to cancel the keypad entry, press asterisk (*). To clear an entry before pressing ENTER, press CLEAR (softkey 3).

3. To exit menu mode, press REG (softkey 4). If you forget to exit, menu mode is automatically canceled after four minutes, or whenever you pick up the handset or press SPEAKER.

Whenever REG is pressed, it either enters or exits menu mode, no matter what else may be in progress.

Note: If you enter menu mode during a call, special features such as Call Pickup and Call Forwarding are temporarily disabled. However, regular calling controls such as HOLD, SPEAKER, MIC-OFF, and call disconnection remain available.

Once you are familiar with the menu choice numbers, you can go directly to the one you want after pressing REG. For example, you can abbreviate the key sequence REG NEXT 7 ENTER to REG 7 ENTER, getting to the RINGER screen without displaying the other menus shown above.

Notes on Entering Information

When the displayed entry is acceptable, press ENTER to retain it and display the next parameter screen.

To change a numerical entry (not including menu selections) before you press ENTER, press CLEAR (softkey 3) and enter the desired value.

To change a menu selection or a numerical entry after you press ENTER, press asterisk (*). In some cases, this returns you to the preceding data entry screen, where you can enter the correct information. In other cases, you return to the menu mode main menu and must redo the procedure from there.

PROGRAMMING A BUTTON FOR ONE-TOUCH DIALING

SRS-1050 multifunction buttons can be set to automatically dial numbers you enter (up to 30 digits each).

The numbers you program can be any of the following:

- Standard telephone numbers, including the outside line access code (usually 9) if required
- Special codes such as a personal ID number or a voice mail access code, including * and #
- A combination of a standard telephone number plus one or more special codes, with pauses between the elements to allow for system response time

The one-touch feature overview in Chapter 2 discusses these possibilities in greater detail and explains how to dial using a one-touch button.

Programming a One-Touch Button

To program a multifunction button for a one-touch number, follow these steps:

1. Press REG (softkey 4), 1, ENTER (softkey 1). This screen appears:

```
ONE-TOUCH
SELECT ASSIGN KEY
```

The indicators for previously assigned one-touch buttons will be green. The indicators for buttons assigned to Directory Numbers, Call Appearances, and features will be red. You cannot program the buttons with red indicators for one-touch dialing.

2. Press the unassigned button you want as your one-touch button. This screen appears:

```
ENTER DIRECTORY NUMBER
DN=                    (12)
```

The multifunction button's number is at the far right of line 2. In this example it is 12.

3. To program a standard telephone number or a special code, press the keypad digits for the number you want recorded. Include the outside access code (such as 9) and area code for long distance. The digits show on the second line.

```
ENTER DIRECTORY NUMBER
DN=912229876543        (12)
```

To program a number that includes pauses and special codes, use the keypad to enter the digits and the HOLD button to enter pauses, which appear on the display as commas. The example shows a standard telephone number followed by a voice mail access code and a voice mail password.

```
ENTER DIRECTORY NUMBER
DN=8247629,99,,2502    (12)
```

Note: If you enter a number with more than 16 digits, the 17th and subsequent digits appear in the 16th number position, and previously entered digits are shifted one column to the left. (The digit in the first number position disappears from the display, but is still recorded.) If you try to exceed the 30-digit limit, the set refuses the input and the display remains unchanged.

4. Press ENTER (softkey 1). The associated LED turns green, and the word COMPLETED appears, remaining for 6 seconds.

```
DN=912229876543          (12)
 COMPLETED
```

5. Complete the procedure in one of these ways:

- To return to the normal display, press REG (softkey 4).

or

- To program another one-touch number, press an unassigned multifunction button, then repeat steps 3 & 4. (You can also press a currently assigned one-touch button to change or cancel its one-touch number.)

or

- To return to the menu mode main menu, press asterisk (*).

Correcting Mistakes

How you correct a mistake depends on where you are in the programming procedure:

- Before pressing ENTER to record the number, press CLEAR (softkey 3) to erase the number. Then enter the correct number.
- After pressing ENTER
  If the number on the COMPLETED screen is incorrect, press the multifunction button again. The ENTER DIRECTORY NUMBER screen appears showing the incorrect number. Enter the correct number and then press ENTER. The correct number appears on the display as you enter it and replaces the incorrect number.

Changing or Canceling the Number Stored in a One-Touch Button

To change or cancel the one-touch number currently stored on a one-touch button, follow these steps:

1. Press REGISTER (softkey 4), 1, ENTER (softkey 1). This screen appears:

```
ONE-TOUCH
SELECT ASSIGN KEY
```

The indicators for previously assigned one-touch buttons will be green.

2. Press the one-touch button whose number you wish to change or cancel. The ENTER DIRECTORY NUMBER screen appears showing the currently assigned number:

```
ENTER DIRECTORY NUMBER
DN=8247629,99,,2502     (12)
```

If the number stored on the one-touch button is more than 16 digits, a right arrow (➔) appears at the end of the line of numbers, indicating that additional numbers exist. To see the additional numbers, press NEXT (softkey 2). Pressing NEXT repeatedly alternates between the two displays.

```
ENTER DIRECTORY NUMBER
DN=94783664,1994,,7➔(14)
```

```
ENTER DIRECTORY NUMBER
DN=➔437709              (14)
```

3. Complete the procedure in one of these ways:

- To change the number, enter a new number. Then press ENTER (softkey 1).

  The new number appears on the display as you enter it, and replaces the old number.

- To cancel the number, press CLEAR (softkey 3) and then ENTER. The button is canceled as a one-touch button, and the green indicator goes dark.

- To leave the number unchanged, press REGISTER (softkey 4) to return to the normal display.

SETTING THE CALENDAR/CLOCK

The normal SRS-1050 display includes the date, time, and day of the week. You can set the date and time by using the procedure described below.

Notes on Entering Information

If the value you have entered is acceptable, press ENTER to record it and display the next parameter screen.
To retain the currently displayed calendar/clock value for a parameter, you can press ENTER without bothering to reenter the value.

To change a numerical entry (not including menu selections) before you press ENTER, press CLEAR (softkey 3) and enter the desired value.

To change a menu selection or a numerical entry after you press ENTER, press asterisk (*). This returns you to the preceding data entry screen, where you can enter the correct information.

Setting Calendar and Clock Values

To set the calendar/clock, follow these steps:

1. Press REG (softkey 4), 2, ENTER (softkey 1). This screen appears:

```
ENTER CALENDAR/CLOCK
 8:06PM    SUN    APR 30
```

2. Press ENTER. The first input screen appears:

```
INPUT HOUR          ->
 8:06PM    '93    APR 30
```

3. Enter the present hour using the numeric keypad and then press ENTER.

   The screen changes to reflect your entry and to prompt for the minute. In this example, assume you entered 12.

```
INPUT MINUTE        ->
12:06PM    '93    APR 30
```

   Note: If you enter #, *, or too large a value, such as 33, for the hour, it is ignored, and you must supply a valid entry.

4. Enter the present minute using the numeric keypad and then press ENTER (softkey 1).

   The screen changes to reflect your entry and to prompt for AM or PM. In this example, assume you entered 55.

```
INPUT 0:AM 1:PM     ->
12:55PM    '93    APR 30
```

5. Press keypad 0 for AM or 1 for PM and then press ENTER.

   The screen changes to reflect your entry and to prompt for the year. In this example, assume you entered 1 for PM.

```
INPUT YEAR          ->
12:55PM    '93    APR 30
```

6. To accept the year displayed, '93, press ENTER.

   or

   To change the year, press two numbers on the numeric keypad for the year you want and then press ENTER.

   The screen changes to reflect your entry and to prompt for the month. In this example, assume you accepted the displayed year.

```
INPUT MONTH         ->
12:55PM    '93    APR 30
```

7. Enter the present month (1 to 12) using the numeric keypad and then press ENTER.

The screen changes to reflect your entry and to prompt for the date. In this example, assume you entered 5 for May.

```
INPUT DAY          ->
12:55PM    '93     MAY 30
```

8. Enter the present date (1 to 31) using the numeric keypad and then press ENTER.

The screen changes to reflect your entry and to display the message COMPLETED. In this example, assume you entered 1 for the date.

```
 COMPLETED
12:55PM    '93     MAY 1
```

Note: If you enter 31 for a month having only 30 days, the display shows ILLEGAL. Press * to enter a valid date. This also applies to entering 29 (except for leap year) or 30 for February.

9. Press REG (softkey 4) to return to the normal display.

The phone automatically inserts the correct day (in this case Tue) for the date you entered in the procedure.

```
. . . . . .
12:55PM    TUE     MAY 1
```

REINITIALIZING THE PHONE

Removes all your one-touch numbers and network-determined key assignments

Clearing all your one-touch numbers and key assignments is useful when the phone is assigned to a new user.

Warning: If you reinitialize your phone accidentally, see Appendix B for the network or manual key assignment download procedure, or ask your System Administrator for help.

To reinitialize your phone, complete the following steps:

1. Press REG (softkey 4), 3, ENTER (softkey 1). This screen appears:

```
PRIVATE DATA CLEAR
(1:YES  2:NO)  ->
```

2. You can choose one of the following options:

   a. To clear all data, press 1 and ENTER.

   or

   b. To retain all data, press 2 and ENTER.

This screen appears:

```
PRIVATE DATA CLEAR
 COMPLETED
```

To return to normal operation, press REG (softkey 4).

UNANSWERED CALL LOGGING (UNA)

Once enabled, this feature records information about incoming calls that were not answered at this phone.

For each unanswered call (up to eight), the set records the date and time of the call plus the telephone number of the calling party. The ninth and later unanswered calls replace the first, second, and so forth, in order, so your UNA list always has the most recent eight. (If the caller gets a busy signal, the call is not considered "unanswered".)

If the set receives a call from a number already on the UNA list, the latest call is recorded and the earlier call is dropped from the list. The set can be configured to record unanswered calls for all lines, designated lines, or no lines (Not Activated).

Some of the data entry displays have built-in timers. If you do not enter information within fifteen seconds, the display reverts to the menu for selecting the feature you were setting up. You must reselect the feature and start again.

If for any reason you become confused, you can always press REG (softkey 4) to return to the menus and start over.

Enabling the UNA Feature

To enable unanswered call logging and select the type of UNA to be used, follow these steps:

1. Press Service, then REG (softkey 4), 4, ENTER (softkey 1).

   If the following screen appears, the UNA feature is disabled:

```
UNA SERVICE MODE
 NON SUPPORTED
```

   To leave it as is, press REG again.

2. To enable UNA, press ENTER. This screen appears:

```
1: ALL MODE  2: SELECT MODE
3: NO SUPPORT MODE    SELECT ITEM
(1-3)
```

Note: If the following screen appears, press ENTER to go to the selection screen.

```
UNA SERVICE MODE
   SUPPORTED  (SELECT)
```

UNA on All Call Appearances

To support UNA on all Call Appearances, follow these steps:

1. Press 1, ENTER, and this screen appears:

```
SUPPORTED (ALL)
 COMPLETED
```

After about 6 seconds, or if you press asterisk (*), the display returns to the second Service Mode screen:

```
4: UNA                5: H-FREE
6: HAND/HEAD     SELECT ITEM  (1-13)
```

2. You can now select a different menu function, or press REG (softkey 4) to return to the normal display:

```
. . . . . .
12:55PM    TUE     MAY 1
```

UNA on Selected Call Appearances

To support UNA on selected Call Appearances, follow these steps:

1. Press 2, ENTER, and this screen appears:

```
SUPPORTED (SELECT)
SELECT ASSIGN KEY
```

If ALL (default) was previously set, all feature buttons light green.

Only Call Appearances with lit LEDs will log unanswered calls. Press the buttons to turn the LEDs on or off to select the Call Appearances for which you want to log unanswered calls.

2. Press ENTER when done, and this screen appears:

```
SUPPORTED  (SELECT)
 COMPLETED
```

After about 6 seconds, or if you press asterisk (*), the display returns to the second Service Mode screen:

```
4: UNA                5: H-FREE
6: HAND/HEAD     SELECT ITEM     (1-13)
```

3. You can now select a different menu function, or press REG (softkey 4) to return to the normal display.

Disabling the UNA Feature

To disable unanswered call logging, follow these steps:

1. Press REG (softkey 4), 4, ENTER (softkey 1).

If the following screen appears, the feature is enabled:

```
UNA SERVICE MODE
 SUPPORTED  (ALL)
```

To leave it as is, press REG again.

2. To disable UNA, press ENTER. This screen appears:

```
1: ALL                  2: SELECT
3: NO SUPPORT    SELECT ITEM
(1-3)
```

3. Now press 3, ENTER, and this screen appears:

```
NON SUPPORTED
 COMPLETED
```

After about 6 seconds, or if you press asterisk (*), the display returns to the second Service Mode screen:

```
4: UNA                  5: H-FREE
6: HAND/HEAD     SELECT ITEM        (1-
13)
```

4. You can then select a different menu function, or press REG (softkey 4) to return to the normal display.

HANDSFREE, HANDSET, AND HEADSET MODES

You can set up the Digital Set to use the handset, the speaker, or a headset by selecting from the following modes:

Headset Mode

Enables use as a headset-only phone. You must disconnect the handset from the jack on the phone's left side and plug the headset into the same jack. Calls are connected and disconnected only by your pressing the SPEAKER button. In headset mode, the handsfree mode, including the speaker/microphone, is not supported.

Handset Mode

Enables normal use as a handset phone. While in this mode, the speaker can be enabled or disabled as follows:

Handsfree Supported

Allows speaker use, controlled by SPEAKER button.

Handsfree Non Supported

Disallows speaker use. The SPEAKER button is disabled. Call pickup and hanging up on calls is by handset only.

Operating the Set with a Headset

To operate the set with a headset, follow these steps:

1. Press REG (softkey 4), 6, ENTER (softkey 1). This screen appears:

```
HAND-SET/HEAD-SET MODE
 HAND-SET
```

2. Press ENTER, and this screen appears:

```
1:HAND-SET    2:HEAD-SET
                    (SELECT 1-2)
```

3. Press 2. Line 2 changes to (SELECT=2).

4. Press ENTER. This screen appears:

```
HEAD-SET
 COMPLETED
```

You can now operate the SRS-1050 using only your headset. The SPEAKER button controls picking up and hanging up calls, and the MIC-OFF button is not operational. The sounds that are usually audible through the speaker, such as the key tones, are now audible only through the headset.

Switching from Headset Back to Handset Mode

Do steps 1 through 4 above, but in step 3, press 1 instead of 2. The final screen will look like this instead:

```
HAND-SET
 COMPLETED
```

When the display shows the selection you prefer, press REG (softkey 4) to return to the normal display.

Selecting Handsfree Operation (using the speaker and microphone)

To select handsfree operation while in handset mode, follow these steps:

1. Press REG (softkey 4), 5, ENTER (softkey 1). This screen appears:

```
HANDS-FREE SERVICE MODE
 NON SUPPORTED
```

2. Press ENTER, and this screen appears:

```
1:SUPPORT    2:NO SUPPORT
                    (SELECT 1-2)
```

3. Press 1. Line 2 changes to (SELECT=1).

4. Press ENTER. This screen appears:

```
SUPPORTED
 COMPLETED
```

You can now use the speaker. The SPEAKER button can control call pickup or hang-up if the handset is in its cradle. The MIC-OFF button (if active) controls the microphone if the speaker is in use. If MIC-OFF is pressed, key tones can be heard, but no other sounds are transmitted until MIC-OFF is pressed again.

Switching Back to Handset-only Operation

Do steps 1 through 4 (from the previous section), but in steps 3, press 2 instead of 1. The final screen will look like this instead:

```
NON SUPPORTED
 COMPLETED
```

When the display shows the selection you prefer, press REG (softkey 4) to return to the normal display.

CHANGING RINGER MODE

This local feature allows you to:

- Change the volume and tone of the ringer
- Select the ringer mode, either normal ring or silent ring. Silent ring causes the LED of the receiving Call Appearance button to flash green without any ringing sound.
- Select the ringing pattern you will hear when you are conversing on another line

All settings are made from item 7, RINGER, in menu mode. After completing a setting, you can press asterisk (*) to return to the menu mode options and change another setting, or you can press REG (softkey 4) to return to the normal display.

Setting Ringer Volume

To set the ringer volume, follow these steps:

1. Press REG (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE MODE
. . . . . .
```

2. Press ENTER again and this menu appears:

```
1:VOLUME      2:TONE
3:RINGING     (SELECT 1-4)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:PATTERN
              (SELECT 1-4)
```

3. Press 1, ENTER. A screen appears showing you the current volume setting:

```
RINGER VOLUME MODE
 MEDIUM
```

4. Press ENTER again and this menu appears:

```
1:SOFT      2:MEDIUM
3:HIGH      (SELECT 1-3)
```

5. Press the number for the desired volume.

The phone rings once at the selected volume. If the volume is too loud or too soft, try a different option.

6. When you hear a volume you like, press ENTER.

The screen shows your selection plus the word COMPLETED:

```
MEDIUM
 COMPLETED
```

7. To return to the normal display, press REG (softkey 4).

To change another setting, you can press asterisk (*) to return to the menu mode options.

Setting Ringer Tone

To set the ringer tone, follow these steps:

1. Press REG (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE MODE
. . . . . .
```

2. Press ENTER again and this menu appears:

```
1:VOLUME      2:TONE
3:RINGING     (SELECT 1-4)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:PATTERN
              (SELECT 1-4)
```

3. Press 2, ENTER. A screen appears showing you the current tone setting:

```
RINGER TONE MODE
 MEDIUM
```

4. Press ENTER again and this menu appears:

```
1:LOW      2:MEDIUM
3:HIGH     (SELECT 1-3)
```

5. Press the number for the desired tone.

The phone rings once at the selected tone. If you don't like the tone, try a different option.

6. When you hear a tone you like, press ENTER.

The screen shows your selection plus the word COMPLETED:

```
LOW
 COMPLETED
```

7. To return to the normal display, press REG (softkey 4).

Selecting Ringer Mode

Select either normal ring or silent ring. Silent ring flashes the LED of the receiving Directory Number or Call Appearance button without ringing the bell.

1. Press REG (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE MODE
. . . . . .
```

2. Press ENTER again and this menu appears:

```
1:VOLUME      2:TONE
3:RINGING     (SELECT 1-4)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:PATTERN
                (SELECT 1-4)
```

3. Press 3, ENTER. A screen appears showing the current ringer mode setting:

```
RINGING MODE
 BELL
```

4. Press ENTER again and this menu appears:

```
1:BELL     2:SILENT
           (SELECT 1-2)
```

5. Select 1 for a normal ring or 2 for a silent ring and then press ENTER. The screen shows your selection plus the word COMPLETED:

```
SILENT
 COMPLETED
```

6. To return to the normal display, press REG (softkey 4).

To change another setting, you can press asterisk (*) to return to the menu mode options.

Selecting Ringer Pattern

This selection determines the type of ring that announces an incoming call when you are conversing on another line.

1. Press REG (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE MODE
. . . . . .
```

2. Press ENTER again and this menu appears:

```
1:VOLUME      2:TONE
3:RINGING     (SELECT 1-4)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:PATTERN
              (SELECT 1-4)
```

The selection you want appears on the second screen of the menu, which you can see by pressing NEXT (softkey 2).

3. Press 4, ENTER. A screen appears showing you the current ringer pattern setting:

```
RINGER PATTERN MODE
 MUTE RING
```

4. Press ENTER again and this menu appears:

```
1:MUTE RING   2:ONE RING
              (SELECT 1-2)
```

5. Select 1 for a mute ring, a normal ring pattern at reduced volume, or 2 for one ring, which rings once at normal volume. Then press ENTER. The screen shows your selection plus the word COMPLETED:

```
ONE RING
 COMPLETED
```

6. To return to the normal display, press REG (softkey 4).

Q.931 MESSAGE LOGGING

The Q.931 message logging feature is not supported on this set.

CALL ANNOUNCE INTERCOM

The Call Announce Intercom feature is a convenient way for a person screening incoming calls to announce the call to the intended recipient. The screener places the incoming call on hold, uses a designated Directory Number to announce the call to the recipient via intercom, and may then transfer the call. The screener can also use this feature to deliver a message.

The Call Announce Intercom operates in one of two modes, two-way or one-way intercom. Two-way intercom immediately activates the speaker and microphone of the called digital set, allowing two-way communication. One-way intercom activates only the speaker, leaving the microphone of the recipient's digital set turned off in the interest of privacy. The recipient must press the MIC-OFF button to respond to the call screener.

Call Announce Intercom allows you to specify which call buttons are activated by Call Announce Intercom Call Screeners, and allows you to select up to three Call Screeners.

Note: Call Announce Intercom is distinct from Network (Switch provided) intercom.

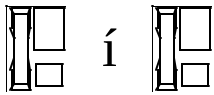
Ringer Always On

The Call Announce feature utilizes a Ringer Always On mode. Ringer Always On sends a tone to users each time a Call Screener activates Call Announce Intercom (regardless of the ringer mode).

When using network based intercom, only the one or two dialed digits are presented, not the screeners phone number. You could also eliminate dialing entirely with dedicated intercom, another network-based feature.

Figure 3-1 shows a typical application of Call Announce Intercom.

Call Screeners Call Recipient



Directory Numbers	Call Announce Intercom setup:
9199263110	Activating Directory
9199263111	Number =
919*926*3112	
9199263112*	Intercom mode = 1-way or 2-way

*Designated for intercom

Figure 3-1: Call Announce Intercom Application

This section describes the requirements for setting up Call Announce Intercom followed by the procedures to use Call Announce Intercom to announce a call.

Call Announce Intercom on Selected Buttons

Before selecting Directory Numbers for call screeners, you may specify the Call Appearance buttons that are to be answered automatically. You may select "ALL" buttons or select the desired Call Appearances.

To enable or disable Call Announce Intercom on selected buttons, follow these steps:

1. Press REGISTER (softkey 4), 11, ENTER (softkey 1). A screen appears showing the current status of the intercom feature:

```
INTERCOM FEATURE
 NONSUPPORTED
```

2. Press ENTER again.

   The Call Announce Intercom button selection screen appears:

```
1: ALL   2: SELECT
3: NO SUPPORT    (SELECT 1-3)
```

3. To make your choice, dial 1 or 2 and press ENTER. If you selected 2, the following screen appears:

```
SUPPORTED (SELECT)
 SELECT ASSIGN KEY
```

4. All LEDs will light green if "All" was previously selected. Only Call Appearances with lit LEDs will activate on Call Announce. Press the buttons to turn the LEDs on or off to select the desired Call Appearance button(s).

5. Press ENTER. The following screen appears:

```
SUPPORTED  (SELECT/ALL)
 COMPLETED
```

After selecting the Call Appearance buttons that are to be auto answered, you may proceed to select Directory Numbers for Call Screeners.

Specifying the Directory Number for Intercom

When enabling the feature, you must specify a Directory Number, which when used by the screener to call the recipient activates the intercom automatically. All recipients can specify the same Directory Number, for all Call Appearance Intercom calls. Normal calls can still be made from this Directory Number to numbers not set up for intercom. Up to three Directory Numbers may be programmed.

When specifying the Directory Number for intercom, you must enter all ten digits of the call screener number. For example, for a call screener at 926-3112, you could enter:

919 926 3112
or
919*926*3112

Entering the full number negates the possibility that an outside call with the same last four digits in the calling number (for example, 302 422-3112) could activate the intercom.

The asterisks in the number 919*926*3112 are wild cards. The digital set accepts any character in this position. You need the wild card to represent the dash (-) if a dash is included in the number delivered with an incoming call. If you are in doubt, have the person who will be screening calls call you, and note the number displayed on the first line of the LCD.

The set supports up to three numbers for screeners. To have more than three screeners, use * as a wild card. For example, entering 919*926*311* allows both the Directory Numbers 3112 and 3115 to activate the intercom. Remember, however, that all other Directory Numbers from 3110 to 3119 would also activate the intercom.

Required Support from Your System Administrator

To guarantee that Directory Numbers are always available for Call Announce Intercom, the System Administrator should:

- Allocate one Directory Number on the digital sets of both recipients and screener for outgoing calls.

Specifying the Directory Numbers of Call Screeners

At the conclusion of selecting buttons for Call Announce Intercom, this screen appears:

```
SUPPORTED (SELECT/ALL)
 COMPLETED
```

1. Press ENTER. If one or two way intercom is enabled, the screen displays the enabled mode plus the authorized Directory Number, as shown below:

```
TWO WAY TURNED ON
 919*926*3112
```

If no telephone numbers have been programmed in, the Call Announce Intercom feature is disabled, and the screen displays NON SUPPORTED:

```
INTERCOM FEATURE  (1)
NONSUPPORTED
```

To program the first number and enable Call Announce Intercom, go to step 2.

2. Press ENTER. The Call Announce Intercom selection screen appears:

```
1:ONE WAY  2:TWO WAY INTERCOM
3: TURN OFF  (SELECT 1-3)
```

3. To enable the intercom feature, dial 1 or 2 and press ENTER. A screen appears showing your choice and prompting for an authorized Directory Number:

```
TWO WAY SELECTED  (1)
ENTER TELEPHONE NUMBER
```

To disable the intercom feature, dial 3 and press ENTER. When the screen displays the message INTERCOM TURNED OFF, press REGISTER (softkey 4) to return to normal operation.

4. Dial a telephone number of up to ten digits (including wild cards) and press ENTER (softkey 1). When you press ENTER, a screen appears announcing ONE (or TWO) WAY TURNED ON and showing the number you entered:

```
TWO WAY TURNED ON
 919*926*3112
```

If a Call Screener has Directory Numbers identified by three, four, or five digit extension numbers, you can dial either the extension number only or the full number. You can also dial an asterisk as a wild card character. See the section introduction for a complete explanation of these choices.

Three Call Screeners can be entered. To program the second or third number, see step 5.

5. Press (*), 11, ENTER, repeat steps 2,3, and 4 as needed until this screen appears:

```
INTERCOM FEATURE  (1)
(ONE OR TWO WAY)  919*926*3112
```

6. Press NEXT (softkey 2) and this screen appears:

```
INTERCOM FEATURE  (2)
NONSUPPORTED
```

Note the number (2) on the first line indicating you are about to program your second call screener number. Pressing NEXT repetitively at this prompt will cycle you through all three call screener selections to the one you want to program or change.

Follow steps starting at # 2 to program the last two numbers.

7. Press REGISTER (softkey 4) to return to normal operation.

Announcing a Call by Intercom

This procedure describes a typical sequence for announcing a call by intercom. The procedure addresses the call screener since the call recipient has little to do. The only action possibly required of the recipient is described in step 3.

The procedure also assumes that both the screener and the call recipient have an SRS-1050 digital set, although only the recipient must have one. If the call screener has some other telephone set, the exact procedure may be different.

This procedure is by no means the only way that you can use Call Announce Intercom.

To announce a call by intercom, follow these steps:

1. Press the Directory Number designated for Call Announce Intercom. The intercom Directory Number indicator lights normally.

2. Dial the extension of the call recipient.

The recipient's SRS-1050 sounds an alert tone, immediately answers the call, and activates the intercom feature.

3. Talk to the recipient.

If the recipient is set up for one-way intercom, pause a few seconds to give the recipient time to press the MIC-OFF button and respond. With two-way intercom, the recipient can respond immediately just by speaking.

Note: To transfer the call at the same time you announce it, use the conference call transfer procedure.

ACTIVATING AND DEACTIVATING THE MIC-OFF BUTTON

The MIC-OFF button (the button at the upper right of the multifunction button array) controls the microphone during handset or handsfree operation. With this button activated as the MIC-0FF button, you can turn off the microphone while on a call to talk privately to people around you, and then press MIC-OFF again to continue your phone conversation.

MIC-OFF is active by default when your SRS-1050 is delivered.

If you deactivate MIC-OFF, assign the upper right button as a one-touch button, and then try to reactivate MIC-OFF, the button's LED turns red as a warning. You must quit the procedure (press * to return to the menu mode main menus) and cancel the one-touch number before you can reactivate MIC-OFF.

If you try to reactivate MIC-OFF without doing this, the message INVALID SELECTION appears and your attempt fails.

If you are deactivating the MIC-OFF button, make sure the function is turned off (the LED is unlit) before beginning the procedure.

To activate or deactivate MIC-OFF, follow these steps:

1. Press REG (softkey 4), 12, ENTER (softkey 1). A screen appears showing you the current status of MIC-OFF.

```
MIC-OFF KEY MODE
 NON SUPPORTED
```

2. Press ENTER again and this menu appears:

```
1:SUPPORT    2:NO SUPPORT
                  (SELECT 1-2)
```

The LED next to the upper right button indicates its current state:

- *Off*: Unassigned
- *Green*: Already active as MIC-OFF
- *Red*: Assigned as a one-touch

If you wish to reactivate MIC-OFF, you must first cancel the one-touch assignment on the upper right button.

3. To activate MIC-OFF, press 1, ENTER.

   To deactivate MIC-OFF, press 2, ENTER.

   The screen shows your choice:

```
SUPPORTED
  COMPLETED
```

4. To return to normal operations, press REG (softkey 4). The standard display screen appears.

SELECTING CALL APPEARANCE PREFERENCE

The preference options determine which Call Appearance button the SRS-1050 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.

If you have an incoming call on button number 1, you are immediately connected to the call. If button number 1 is idle, you get a dial tone. If you are going offhook to retrieve a call on hold on button number 1, you must press the button to reconnect to the call.

To be connected to an incoming call on another button, or to get a dial tone on an idle button, press the button either before or after you go offhook.

- *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. If you have more than one incoming call, the SRS-1050 selects any ringing Intercom or Intercom Group feature button first, and then selects the button with the call that has been ringing the longest. You are immediately connected to the call.

- *Idle preference.* The SRS-1050 selects a Call Appearance button that is idle, if one is available.

If you have no incoming calls, the SRS-1050 selects the idle Call Appearance with the lowest button number and gives you a dial tone.

To select a Call Appearance preference, follow these steps:

1. Press REG (softkey 4), 13, and ENTER (softkey 1). A screen appears showing you the current preference.

```
CURRENT MODE IS
PRIMARY
```

2. Press ENTER to display the preference menu.

```
1:RINGING    2:IDLE
3:PRIMARY  (SELECT 1-4)
```

To see the next menu screen, press NEXT (softkey 2):

```
4:NO PREF
              (SELECT 1-4)
```

3. Press the number of the preference option you want and then press ENTER. A screen appears showing your selection and the message COMPLETED.

```
RINGING PREFERENCE
   COMPLETED
```

4. To return to normal operations, press REG (softkey 4).

The standard display screen appears.

Notes

CHAPTER 4

DATA OPERATION

The SRS-1050 Digital Set is available in a voice/data model that allows you to use the set for data applications. Please refer to the *Fujitsu ISDN Data User's Guide* for information on how to set up and configure the Terminal Adapter for proper operation.

USING THE DATA TERMINAL ADAPTER

This chapter describes three ways to make a data call using the integrated Terminal Adapter (TA) in your Digital Set.

- Using the DATA softkey (second button from the left under the display)
- Using AT commands at your terminal

There are three LEDs below the multifunction buttons of the SRS-1050. DTR (Data Terminal Ready) must be steady green to establish a connection.

Transmitting data from your terminal causes the TXD (Transmit Data) LED to flash, and receiving data causes the RXD (Receive Data) LED to flash.

MAKING AND TERMINATING A DATA CALL

You can start or end a data call either manually or by using commands at your terminal, as described in the following sections.

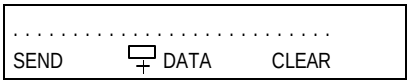
Using the DATA Key

To make a data call using the digital set DATA key, follow these steps:

1. Press DATA (softkey 2).

To display the softkey names, press KEY MENU.

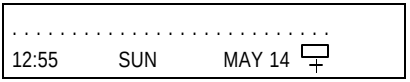
Next to the word DATA on the display, a blinking terminal symbol appears, and to its left the word SEND appears for about six seconds.



2. Use the keypad to enter the number you wish to dial (or press a one-touch button), and press SEND (softkey 1).

Note: The SEND key tells the Digital Set to dial the number. If you don't press SEND, the Digital Set will dial the number after a six second delay.

As you dial, the number you are dialing appears on the display. When you press SEND, the display returns to its normal state, with the terminal symbol to the right of the time and date.



If the terminal symbol continues to blink for more than a minute, the remote PAD (Packet Assembler/Dissembler) isn't answering the call. Press DATA again to clear the call.

Once the call connects, the terminal symbol stops blinking.

3. To disconnect a data call manually, press DATA (softkey 2). The terminal symbol on the display disappears.

Using AT Commands

To make a data call using AT commands from an asynchronous terminal, follow these steps:

1. From your terminal, enter the AT dial command (ATD) and the number you wish to dial (2345678 for example), ending with a carriage return (shown here as <CR>):

   ATD2345678 <CR>

The letters AT stand for Attention, D for Dial. (Either ATD or atd will work. A blinking terminal symbol appears on the phone's display next to the word DATA.

When the call connects, the word CONNECT or COM appears on the terminal screen. The phone's display returns to normal, except that a steady terminal symbol continues to be shown after the time and date on line 2.

If the call cannot be completed (the called terminal was busy or did not answer), the message NO CARRIER appears on your terminal screen.

2. To disconnect the call, use the following procedure:

   - Enter +++ from your terminal. OK appears on the terminal screen.
   - Enter ATH <CR> from the terminal. The call disconnects, and the terminal symbol on the phone's display disappears.

Note: When you use the AT commands, the message ERROR will appear on the terminal screen if the command is entered incorrectly. Please refer to the *ISDN Data User's Guide* for more information on using the AT commands.

Notes

TOC

INDEX

PLACING A CALL TO A LEASED NETWORK

A call to a leased network number follows the same basic procedures given in the preceding sections, with two differences:

- Terminal calls can only be made using AT commands
- When you enter the number, you must enter a leased network access code, including the access code delimiter.

Using the Data Key

Before you can dial a leased network number with the DATA key, you must assign one of your multifunction buttons as a leased network access code delimiter key. See Chapter 3 for the procedure.

When you enter the number of the Data Terminal Equipment (DTE) you want to call, use one of the following procedures:

- Enter the telephone number of the DTE you want to call; press the assigned leased network access code delimiter key; then enter the leased network access code.
- Press the assigned leased network access code delimiter key; enter the leased network access code; press the delimiter key again; then enter the telephone number of the DTE you want to call.

Once you complete entering the leased network number, press the SEND softkey as usual.

Using AT Commands at a Terminal

After you type ATD, type the number of the DTE you want to call using one of these two sequences:

- Type the telephone number of the DTE you want to call; type a colon; then type the leased network access code.
- Type a colon; type the leased network access code; type another colon; then type the telephone number of the DTE you want to call.

Once you complete entering the leased network number, press <CR> as usual.

APPENDIX A

ISDN ORDERING

Fujitsu participates in the North American ISDN User's Forum (NIUF) and the Corporation for Open Systems (COS) along with your local telephone company, in ongoing efforts to make ordering ISDN easy for our customers.

The NIUF has developed two types of ISDN Ordering Codes (IOCs): product specific and generic. These IOCs inform the telephone company about number of telephone numbers or call appearances, the ISDN features and the voice and data capabilities in the package. Essentially, it is a recipe for the telephone company to follow when installing your ISDN service.

The solution packages outlined here were designed to meet the needs of many users. One or more of them may meet your needs. On the other hand, your needs may be unique and require a fully customized design of your ISDN service.

To achieve the goal of easy ordering, Fujitsu has developed compatibility with generic ISDN Ordering Code Feature Activators. This means that the SRS-1050 can accept both Fujitsu specific feature activators and a selected set of generic feature activators.

The Fujitsu SRS-1050 is compatible with ordering codes for Packages D, E, and G, which are shown at the end of this appendix.

Fujitsu sets also support the E-Z ISDN Ordering Codes.

Using IOCs

The first step in using IOCs is to become familiar with your equipment. You should decide what feature and capabilities are needed for your telephone system. On the following pages, a number of commonly used features are described, along with a number of generic ordering codes. Please select and order your ISDN service using these codes. Remember that each telephone company has an individual billing structure for ISDN lines and features.

You will find definitions of the terms used in each configuration listed below. Following the definitions, you will see an SRS 1050 template for each solution package. The template shows the features and call buttons that will appear on your set if you select that solution package.

Depending on your needs, one or more of these packages may be suitable. If you do not find a solution set that meets your needs exactly, please select the one that meets most of your needs and discuss the other options you need with your telephone company representative when you order service.

Be sure to reference the correct ISDN Ordering Code in your discussion with the telephone company.

If you have any questions about the Fujitsu ISDN Ordering Codes, please call your equipment supplier. Assistance is also available at the Fujitsu Technical Support number, 1 800 228-ISDN.

Definitions

DN Directory number or telephone number

CA Call appearance of a telephone number

Call button
a button available for a voice call

CFD/CFB
Call forwards incoming calls to a preassigned destination number when you "don't answer" or when your line is "busy;" set up at service subscription

CFV Call forwards incoming calls to a number you select; activated by user when needed

MSG
Message Waiting in your telephone company provided voice mail

Conference
allows you to make a three way call

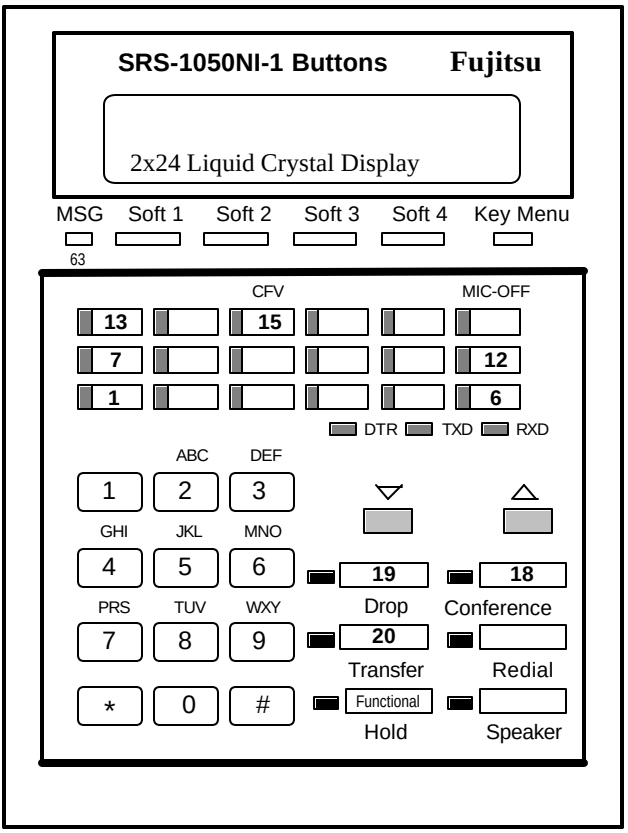
Drop.....
allows you to drop the last party added to a three way call

Transfer
allows you to transfer a call to another telephone number

Hold
allows you to put an active call on "hold"

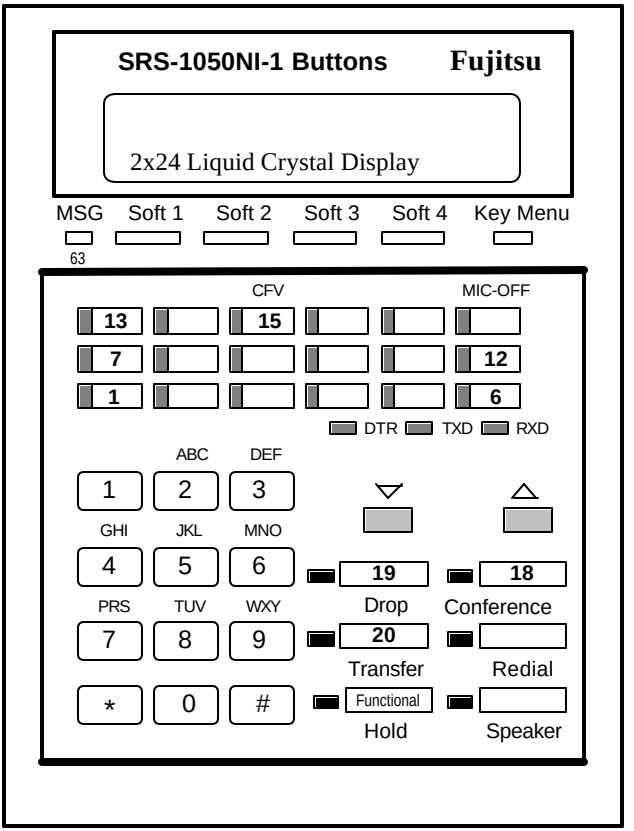
Circuit switched data on a B-channel

CNI provides the incoming calling line number if	available



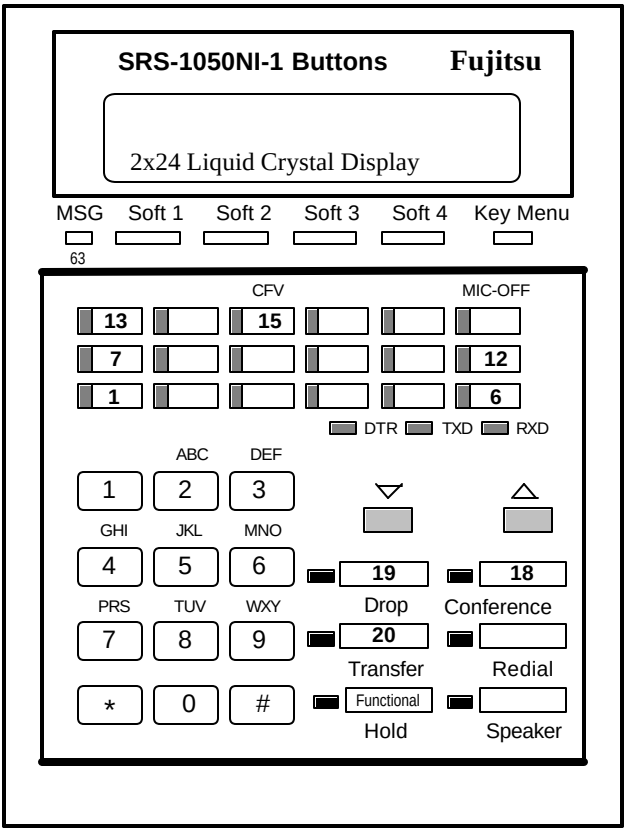
Package D

- ☎ Directory Number, with 1 button for voice calls
- ☎ CFV - activated by user when needed
- ☎ D-channel packet data capability



Package E

- ☎ DN with 4 call buttons
- ☎ Calling Number Identification
- ☎ CFD and CFB
- ☎ CFV - activated by user when needed
- ☎ Message Waiting
- ☎ Conference, Drop, Transfer
- ☎ D-channel packet data capability



Package G

- ☎ DN with 4 call buttons
- ☎ Calling Number Identification
- ☎ CFD and CFB
- ☎ CFV - activated by user when needed
- ☎ Message Waiting
- ☎ Conference, Drop, Transfer
- ☎ B-channel circuit switched data capability

E-Z ISDN

The SRS-1050 and the other FNC terminals (2100 and 1025i) support the E-Z ISDN Ordering Codes. The E-Z Codes may be ordered from a number of the service providers. Below are two of the E-Z Code configurations.

Package EZ 1

- ☎ Circuit Switched voice/data on one B-channel
- ☎ Non-EKTS
- ☎ Primary Directory Number
- ☎ Additional Call Offering
- ☎ HOLD
- ☎ CONFERENCE (Button/FA = 60)
- ☎ DROP (Button/FA 62)
- ☎ TRANSFER (Button/FA = 61)
- ☎ CALL FORWARDING VARIABLE (Button/FA = 57)

Package EZ 1A

- ☎ Circuit Switched voice/data on one B-channel
- ☎ Non-EKTS
- ☎ Primary Directory Number
- ☎ Additional Call Offering for CSV (CRBL = 3)
- ☎ HOLD
- ☎ CONFERENCE (Button/FA = 60)
- ☎ DROP (Button/FA 62)
- ☎ TRANSFER (Button/FA = 61)
- ☎ CALL FORWARDING VARIABLE (Button/FA = 57)
- ☎ CALL FORWARDING BUSY/DON'T ANSWER
- ☎ VISUAL MESSAGE WAITING INDICATOR (Button/FI = 63)

Package D, 3
Package E, 4
Package EZ 1, 6
Package EZ 1A, 6
Package G, 5

APPENDIX B

INSTALLATION

These instructions are intended mainly for System Administrators or service personnel or end users that are installing the SRS-1050.

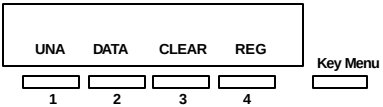
Installation of the SRS-1050 involves four main steps:

- Connecting the set to the network.

  It's necessary to determine the type of Telephone Company switching equipment in use for proper connection to the Telephone Company network. Implementation procedures vary from one manufacturer to another.

Switch	*Manufacturer*
DMS-100	Nortel
5ESS	Lucent
EWSD	Siemens

- Entering Service Profile Identifiers (SPIDs) and a D-channel Terminal Endpoint Identifier (TEI) for packet-switched data calls, as required.
- Loading network data. This may be accomplished by two methods: 1) downloading of features from the switch, or 2) manual configuration of multifunction buttons.
- Programming and labeling the set.



Standard Softkey Layout

INSTALLING THE SRS-1050

ISDN equipment may be installed in a number of configurations. In most installations, the supplementary equipment (NT1 and power) is located in a wire closet in your building. If this is the case in your installation, please skip to the section below: "Connecting to the network".

In some installations, the NT1 and power are located at the user's desk.

Two drawings are included that illustrate the connections you may need to make when the power and NT1 are located at the user's desk.

Figure B-1 illustrates the connections when one power supply is used for both the NT1 and the SRS-1050 and also indicates the position of the power switch on the SRS-1050.

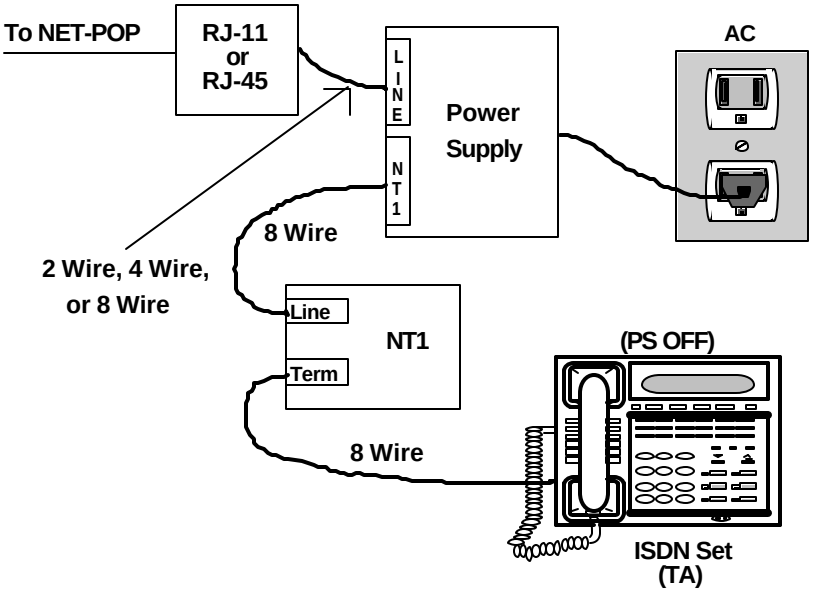


Figure B-1: Power Connections

Figure B-2 illustrates the connections when a power supply is needed for the NT1 and another is needed for the SRS-1050 and also indicates the position of the power switch on the SRS-1050.

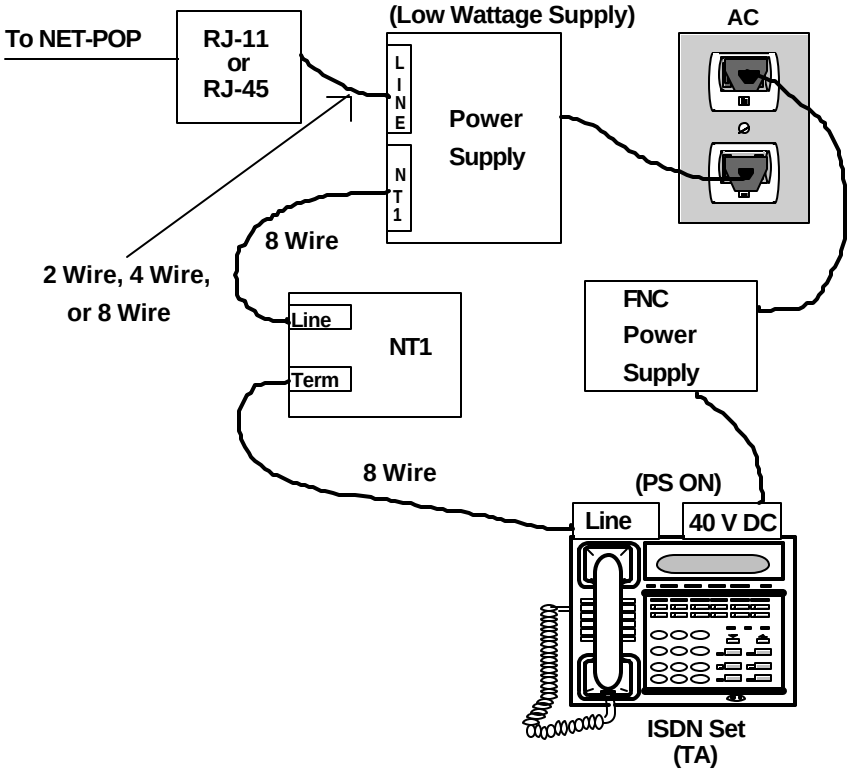


Figure B-2: Power Connections

CONNECTING TO THE NETWORK

When you receive your SRS-1050, plug the telephone line from the wall into the LINE socket on the back of the set. If the display shows a date and time, you have power. If the display does not light up, you may need a power supply to connect to the wall socket and to the 40 V DC power socket on the back of the set.

If you are connecting power for the first time, you should see the message SPID NG. See the next section to enter a Service Profile Identifier (SPID).

ENTERING SPIDS AND A D-CHANNEL TEI

The Service Profile Identifier identifies your set to the network. If you have a voice/data terminal, you may need two SPIDs, one for voice and one for B-channel circuit-switched data. You may also need to enter a D-channel Terminal Endpoint Identifier (TEI) for packet-switched data calls. You can enter the data SPID and TEI either through this procedure or through procedures in the *Data User's Guide*.

If you have only one SPID for both voice and data, enter the SPID as a voice SPID only. Do not enter the same SPID twice (for voice and data).

Do not change your SPID unless told to do so by your service provider. In most cases, digital sets will not work without the correct SPID number. If the SPID number is wrong, the set displays the message SPID NG. Enter the correct SPID number, and then disconnect and reconnect power to make the set function normally.

To enter the service profile identifiers and the terminal endpoint identifier, follow these steps:

1. Press REGISTER (softkey 4) 8, ENTER (softkey 1).

The message ENTER VOICE SPID appears, with the current SPID number (if any) shown below it.

```
ENTER VOICE SPID
ID=000000000000
```

2. Dial your voice SPID number and press ENTER.

The display prompts for the data SPID, if you have a data model.

```
ENTER DATA SPID
ID=
```

3. Dial your data SPID number and press ENTER.

   If you have no data capability, just press ENTER.

   To cancel a data SPID, press CLEAR and then press ENTER.

   The display prompts for the D-channel TEI. (If you are on a DMS system, enter the packet TEI.)

```
ENTER PACKET TEI
ID=0
```

4. Dial your TEI (valid numbers are from 0 to 63) and press ENTER. Your System Administrator provides the TEI.

   If you have no data capability, just press ENTER.

   This screen appears:

```
SPID/TEI ASSIGNMENT
COMPLETED
```

5. Press REGISTER (softkey 4) to return to normal operations.

Note: For first time installations, download will occur without plugging and unplugging the set.

At initial installation, when you press ENTER, the SRS-1050 automatically requests a download from the switch. This downloading function will work on switches that support parameter downloading and on early versions of the DMS that supports Service Profile Management downloading (SPM). On other switches, manual configuration of features and lines is necessary.

Although each service provider can decide the number of characters and format of the SPID, most have agreed on a simple format. This format, referred to as generic SPID format, is likely the format used by your service provider.

The generic SPID format consists of 14 digits: (10 digit DN) + (2 digit Sharing Terminal Identifier) + (2 digit Terminal Identifier).

The first component is the main telephone number of the terminal, including the area code. For example, 9197962000.

The Sharing Terminal Identifier, component two, differentiates between terminals that share the same main telephone number but have different services on the ISDN line. For a terminal that does not share the same main telephone number, these digits are "01". This is the typical situation.

The last part of the SPID is another two digit segment. This terminal identifier differentiates between terminals that share the same main telephone number and have identical services. In typical situations, these digits are "01".

The most frequently assigned SPID will be the following: NPA NXX XXXX 0101.

If your service provider has not supplied a SPID to you, try this format shown above. If it does not work, contact your service provider or System Administrator.

Occasionally, if the switch is very busy, the download may be delayed for a short time. The SRS-1050 will continue to request a download until it is successful, or until it receives a message from the switch indicating that a manual configuration is needed.

The SRS-1050 also supports two other functions associated with parameter downloading.

1) Service Profile Change Notification. If you request a change to your ISDN service configuration, when that change is completed in the central office, the switch notifies the SRS-1050 that a change has occurred. The SRS-1050 then requests a download from the switch to update its configuration. This occurs automatically.

   If you have used the manual configuration feature, the settings that differ from the downloaded settings will be lost.

Note: On a DMS-100 which supports SPM instead of parameter downloading, if a Service Profile change is made in the switch, it is necessary to unplug the set from the power and reconnect it in order for a download of the new configuration to occur.

2) The SRS-1050 provides a manual download function that allows you to request a download if you suspect that the information in the SRS-1050 may be corrupt. Instructions for manual download are in the Key Attribute section.

LOADING OR MODIFYING NETWORK DATA (after entering the SPID)

This section explains how to use the KEY-ATTR feature in menu mode to load or modify network data. You must load network data with KEY-ATTR if the set is connected to a switch that does not support the terminal downloading function.

If the switch has downloaded network data automatically, you can use these procedures to modify the set configuration to conform to your personal preferences. In these procedures, you select a button on your SRS-1050 and assign the button a Directory Number, Call Appearance Number, Intercom or Group Intercom Number, or a Feature Number recognized by the network.

When you press the button for a Directory Number or Call Appearance, the phone sends the necessary signals to initiate or answer a call. When you press the button for a feature, the phone sends the feature's number, which causes the network to activate or deactivate the feature.

Configuration Types: EKTS and CACH

National ISDN (NISDN) supports two configurations on multiple line sets. The configurations are Electronic Key Telephone Systems (EKTS or ACO) and Call Appearance Call Handling (CACH). If SPM has downloaded network data, you need to know which configuration is used so that you can modify the configuration if you wish. Additionally, you must know which configuration is used if you are entering network data manually.

EKTS and ACO use Directory Numbers for telephone lines and feature numbers for features. You enter these numbers with options 2 and 3 of KEY-ATTR.

CACH uses Call Appearances for telephone numbers and feature numbers for features. You enter these numbers with options 1 and 2 of KEY-ATTR.

Key Attribute Configuration

Before attempting to load or modify network data, obtain the current configuration from your service provider. This configuration information should show the Directory Numbers/Call Appearances, the features (with their feature numbers), and the SRS-1050 button to which each Directory Number/Call Appearance or feature is assigned.

Button assignments fall into three categories: Directory Numbers, Call Appearances, and Features. If you must manually configure your set, or if you want to rearrange the button assignments on your set, you must use the following method. If you plan to change a button assignment from one category to another (e.g. Call Appearance to Directory Number) you must first cancel the current assignment and add the new assignment. For changes within a category (call forwarding to call pick-up), simply replace the old data with the new data.

To load, modify, or update your set's network data, begin with these steps:

1. Press KEY MENU, then REGISTER (softkey 4), 10, ENTER (softkey 1). This screen appears:

```
KEY ATTRIBUTE MODE
. . . . . .
. . . .
```

2. Press ENTER again to display the set-up options.

```
1: DL          2: MANUAL
                 SELECT ITEM (1-2)
```

You can either automatically download the configuration or set-up each item manually. Each method is described in the following sections.

Download

Key Attribute selection 1, “Downloading”, may be used to request a download after initial installation.

1. To automatically download the configuration, press 1, ENTER. The following displays are shown during processing.

```
DL EXECUTING
UNA    DATA    CLEAR
REGISTER
```

```
DL COMPLETED
UNA    DATA    CLEAR
REGISTER
```

Manual Configuration

The menu items serve these functions:

1. Assigns buttons to Call Appearances in CACH.
2. Assigns buttons to network-provided features in both CACH and EKTS/ACO.
3. Assigns buttons to Directory Numbers in EKTS, ACO/AFC.
4. Assigns buttons to network-provided intercom and Group Intercom.
5. Assigns the network conference feature button.
6. Assigns the transfer key.
7. Assigns the originating directory number key.
8. Assigns the reservation status to a call button.
9. Assigns the designated call appearance.

The following sections contain the procedure for each of these menu selections.

1. Press REGISTER (softkey 4), 10, ENTER (softkey 1). This screen appears:

```
1: DL              2: MANUAL
                   SELECT ITEM  (1-2)
```

2. Press 2, ENTER to display the options for manual download.

```
1:CA          2:FA
3:DN          (SELECT 1-9)
```

Press NEXT, and this screen appears:

```
4:ICM/GIC     5:CONF
6:TRANS       (SELECT 1-9)
```

Press NEXT, and this screen appears:

```
7:ORIG DN     8:CA RESV
9:DSGN CA     (SELECT 1-9)
```

Note: The following descriptions begin with selections from these nine items.

MULTIFUNCTION BUTTONS

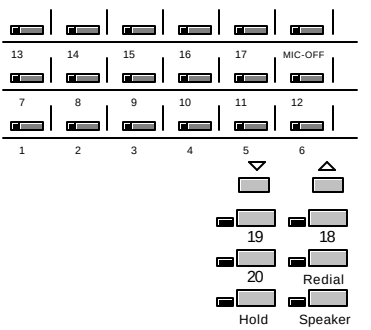


Figure B-3: Multifunction Button Layout

Selection 1: Call Appearance (CACH Call Buttons)

Your NISDN SRS-1050's first button is set at the factory as CA=1. There is no need to change this when using the CACH mode of managing calls.

On a DMS NI1, it may be necessary to reset button 1 to be a DN. See instructions under Selection 3, in this section.

Your service provider will provide you with Call Appearance Numbers and associated Telephone Numbers. Example: Telephone Number 555-1212 is your Primary Directory Number and occupies CA 1, 2, and 3. Telephone Number 555-3333 is a secondary or shared Telephone Number and occupies CA 4, 5, and 6. Note that CA numbers are always distinctive.

1. Press 1 and ENTER (softkey 1). This screen appears:

```
CALL APPEARANCE MODE
   SELECT ASSIGN KEY
```

The set's indicators show button status as follows:

- *Green* indicates a button already assigned to a Call Appearance.
- *Red* indicates a button already assigned to a DN, to a network feature, or to a local feature such as one-touch.
- *Unlit* indicates an unassigned button.

2. Press the button to which you want to assign a Call Appearance.

You can press any unlit or green multifunction button. If you press a red button, the display shows the message INVALID SELECTION, and the set waits for you to press a valid button.

- If you press a green button, the display shows the current number assigned to that multifunction button. You can either enter a new number to replace the current number or cancel the current number.
- If you press an unlit button, the screen looks like this:

```
CA=                    (XX)
. . . . . .
. . . .
```

XX is the number of the multifunction button you pressed. If you pressed a green-lit button, the current feature number appears after CA=. The new number you enter replaces this number.

3. You now have two choices:

   - To add or change the CA number, enter the new number and press ENTER.

   or

   - To cancel the CA number, press CLEAR (softkey 3) and then ENTER.

The final screen looks like this:

```
CA=XX                (XX)
 COMPLETED
```

If you canceled the CA number, no numbers appear after CA= and the button indicator goes dark.

4. With your Call Appearance assignment complete, you have these choices:

   - To assign another CA, press the desired button and repeat steps 2 and 3.
   - To return to normal operation, press REGISTER.
   - To make additional button assignments, press asterisk (*). This returns you to the menu mode main menu.

This completes programming of CAs. If you have programmed your SPID, correctly completed this procedure and your ISDN line is properly plugged in you should now be ready to place and receive voice calls. If you encounter problems, review these items for accuracy.

Selection 2: Feature Activator

1. Press 2 and ENTER. This screen appears:

```
FEATURE ACTIVATOR MODE
SELECT ASSIGN KEY
```

The set's indicators show button status as follows:

- *Green* indicates a button already assigned to a network feature.
- *Red* indicates a button already assigned to a DN, CA or to Intercom or Intercom Group, or to a local feature such as one-touch.
- *Unlit* indicates an unassigned button.

2. Press the button to which you want to assign the network feature.

You can press any unlit or green multifunction button. If you press a red button, the display shows the message INVALID SELECTION, and the set waits for you to press a valid button.

- If you press a green button, the display shows the current feature number assigned to that multifunction button. You can either enter a new feature number to replace the current number or cancel the current number.
- If you select an unlit button, the screen looks like this:

```
FEATURE ACTIVATOR MODE
FA=                (XX)
```

XX is the number of the multifunction button you pressed. If you pressed a green-lit button, the current feature number appears after FA=. The new number you enter replaces this number.

3. You now have two choices:
   - To add or change the feature assignment, enter the feature number you received from the telephone company and then press ENTER.
   - To cancel the feature assignment, press CLEAR (softkey 3) and then press ENTER.

The final screen looks like this:

```
FA=XX              (XX)
 COMPLETED
```

If you canceled the current assignment, no numbers appear after FA= and the button indicator goes dark.

4. With your Feature Activator assignment complete, you have these choices:
   - To assign another FA, press the desired button and repeat steps 2 and 3.
   - To return to normal operation, press REGISTER.
   - To make additional button assignments, press asterisk (*). This returns you to the menu mode main menu.

This completes programming of FAs. If you encounter problems accessing features, review these items for accuracy and check with your service provider.

Caution: If you manually reassign the CONFERENCE button, conference may not work in all cases. If you wish to reassign this button, talk to your System Administrator or service provider.

Selection 3: Directory Number

Your NISDN SRS-1050's first button is set at the factory as CA=1. If you subscribe to EKTS or Basic ISDN on a DMS NI1, it is necessary to first clear the CA setting. Then you can enter DNs.

1. Press 1 and ENTER. This screen appears:

```
CALL APPEARANCE MODE
  SELECT ASSIGN KEY
```

The first button lower left, lights green. This is the factory default CA=1.

2. Press button 1.

3. Press CLEAR (softkey 3), ENTER (softkey 1). The green call button will extinguish.

This screen appears:

```
CA=
  COMPLETED
```

Now that you have cleared CA=1 from your first call button, you are ready to program Directory Numbers. If COMPLETED still appears on the display, press keypad *, 10, ENTER (softkey 1), 3, ENTER.

This screen appears:

```
DIRECTORY NUMBER MODE
SELECT ASSIGN KEY
```

The set's indicators show button status as follows:

- *Green* indicates a button already assigned to a Directory Number.
- *Red* indicates a button already assigned to a network feature or to a local feature such as one-touch.
- *Unlit* indicates an unassigned button.

4. Press the button to which you want to assign the Directory Number.

You can press any unlit or green multifunction button. If you press a red button, the display shows the message INVALID SELECTION and the set waits for you to press a valid button.

- If you press a green button, the display shows the current Directory Number assigned to that multifunction button. You can either enter a new Directory Number to replace the current number or cancel the current number.
- If you press an unlit button, the screen looks like this:

```
DIRECTORY NUMBER MODE
DN=                    (XX)
```

XX is the number of the multifunction button you pressed. If you pressed a green-lit button, the current Directory Number appears after DN=. The new number you enter replaces this number.

5. You now have two choices:

   - To add or change the DN assignment, enter the Directory Number and then press ENTER.
   - To cancel a DN assignment, press CLEAR (softkey 3) and then press ENTER.

The final screen looks like this:

```
DN=XXXXXXX          (XX)
 COMPLETED
```

If you canceled the current assignment, no numbers appear after DN= and the button indicator goes dark.

Note: If you are assigning multifunction button 1, you must enter the set's primary Directory Number.

6. With your Directory Number assignment complete, you have these choices:

   - To assign another DN button, press the desired button and repeat steps 4 and 5.
   - To return to normal operation, press REGISTER.
   - To make additional button assignments, press any red-lit button and then press asterisk (*). This returns you to the menu mode main menu.

This completes the programming of Directory Numbers. If you have programmed your SPID correctly, completed this procedure, and your ISDN line is properly plugged in, you should now be ready to place and receive voice calls. If you encounter problems, review these procedures for accuracy.

Selection 4: Intercom/Group Intercom

Press 4 and ENTER. This screen appears:

```
ICM/GIC MODE
SELECT ASSIGN KEY
```

From this point, you may assign Intercom and Group Intercom keys using the same process used for Call Appearances.

Selection 5: Conference

It is necessary to assign the conference feature to a key using the following process.

Note: This step is not necessary if CONFERENCE is assigned to Button 18, using Feature Activator 18 or 60.

1. Assign CONFERENCE as you would any feature activator.

2. In the KEY ATTR MODE, press 5, CONFERENCE, then press ENTER:

```
CONF APPEARANCE
   SELECT ASSIGN KEY
```

3. Press selected CONFERENCE button. This screen appears:

```
CONFKEY = (XX)                    FA =
(XX)
. . . . . .
. . . .
```

4. Press ENTER. The selected button's LED turns green.

```
CONFKEY = 18                      FA = 18
or 61
   COMPLETED
```

Selection 6: Transfer Key

Note: This step is not necessary if TRANSFER is assigned to Button 20, using Feature Activator 20 or 61.

1. To manually assign the Transfer key for your SRS-1050, press 6, ENTER to view the following display:

```
TRANSFER REGISTRATION
  SELECT ASSIGN KEY
```

2. Press the Multi-assign key #32 (labeled TRANSFER), and the following display is shown.

```
TRANSFER REGISTRATION
TRANS KEY = (20)          FA=20 or 61
```

3. Press ENTER.

```
TRANS KEY = (20)          FA=20 or 61
  COMPLETED
```

Note: If the user selects a key that cannot be used for Transfer, the following display is shown:

```
SELECT ASSIGN KEY
INVALID SELECTION
```

Note: The SRS-1050 supports certain new capabilities of National ISDN 97/98. If you wish to assign the following features, the necessary steps are shown below. The SRS-1050 will operate using default values, if you do not make assignments.

Selection 7: Originating DN

The SRS-1050 supports new ISDN features that allow you to designate lines for originating or receiving calls. This feature works with a complementary switch feature that you can order from your telephone company. It is called Call Appearance Reservation.

For these features to work properly, both the SRS-1050 and the switch must be properly configured.

The categories, described as "call appearance reservation status" that you may select are listed below.

Originating only: allows certain Directory numbers or call appearances of Directory Numbers to be used for outgoing calls only.

Terminating only: allows certain Directory numbers or call appearances of Directory Numbers to be used for incoming calls only.

Originating only/Priority Incoming only: allows certain Directory numbers or call appearances of Directory Numbers to be used for outgoing calls and for incoming priority calls only.

Non-reserved: may be assigned to lines that have no reservation status.

The first step is to designate the CA or Directory Number that you will typically use for outgoing calls. This is called the Originating DN. If you do not subscribe to Call Appearance Reservation, you do not need to follow the steps in Selection 7 or Selection 8.

1. To manually assign the Originating Directory Number key for your SRS-1050, press 7, ENTER to view the following display:

```
ORIGINATING DN MODE
 SELECT ASSIGN KEY
```

2. Press the selected Multi-assign key.

```
ORIGINATING DN MODE
ORIGINATING DN = ON          (1)
```

3. Press ENTER. The following display is shown. You have the option to turn the selected key ON or OFF.

```
1:ON          2:OFF
              SELECT ITEM (1-2)
```

4. Press 1 or 2 to change the current status, or press ENTER to accept the current status.

```
ORIGINATING DN=ON            (1)
 COMPLETED
```

Note: If an invalid key is selected for the originating Directory Number, the following display is shown.

```
ORIGINATING DN REGISTRATION   (XX)
INVALID SELECTION
```

Selection 8: Call Appearance Reservation

If you have subscribed to Call Appearance reservation on your ISDN line, it is necessary to assign a reservation status to each CA that is subscribed.

1. To manually assign the Call Appearance Reservation key for your SRS-1050, press 7, ENTER to view the following display:

```
CA RESV MODE
 SELECT ASSIGN KEY
```

2. Press the selected Multi-assign key.

```
CA RESV MODE
CA RESV = ORG          (1)
```

3. Press ENTER. The following display is shown. You have the option to change the CA Reservation mode.

TRM = Terminating Only
ORG = Originating Only
ORGIP = Originating and Priority Incoming Only
OFF = non reserved

```
1:TRM     2:ORG
3:ORGIP   (SELECT 1-4)
```

Press NEXT to see the following display.

```
4:OFF
      (SELECT 1-4)
```

4. Press the number for the desired setting, then ENTER.

```
CA RESV = TRM        (1)
 COMPLETED
```

Note: If an invalid key is selected for the CA Reservation key, the following display is shown.

```
CA RESERVATION MODE
INVALID SELECTION      (XX)
```

Note: The SRS-1050 supports certain new capabilities of National ISDN 97/98. If you wish to assign the following features, the necessary steps are shown below. The SRS-1050 will operate using default values, if you do not make assignments.

Selection 9: Designated Call Appearance

In Selection 5 and Selection 6, you assigned CONFERENCE and TRANSFER. The SRS-1050 automatically selects the call button you want to use for the third connection of a conference or transfer. This button is called the Designated Call Appearance (DCA).

If you do not assign a DCA, the SRS-1050 will automatically select a default call button.

1. To manually assign the Designated Call Appearance key for your SRS-1050, press 9, ENTER to view the following display:

```
DESIGNATED CA MODE
 SELECT ASSIGN KEY
```

2. Press the selected Multi-assign key.

```
DESIGNATED CA REGISTRATION
DSGN CA = ON              (1)
```

3. Press ENTER. The following display is shown. You have the option to turn the selected key ON or OFF.

```
1:ON          2:OFF
              SELECT ITEM (1-2)
```

4. Press 1 or 2 to change the current status, or press ENTER to accept the current status.

```
DSGN CA=ON                (1)
 COMPLETED
```

Note: If an invalid key is selected for the Designated Call Appearance, the following display is shown.

```
DESIGNATED CA REGISTRATION    (XX)
INVALID SELECTION
```

PROGRAMMING AND LABELING THE SET

Refer to Chapter 3 for procedures to:

- Enable headset use and turn off handsfree mode, if desired.
- Set operating parameters such as ringer volume and tone.
- Program the calendar/clock and other local features.

To label the buttons on the set, you must first remove the plastic cover over the front panel. Insert a pointed object into the semi-circular notch at the bottom middle of the plastic cover and lift the cover upward.

Below the cover is a template. Write button labels on this template to show the directory numbers or features assigned to each button. Then lay the template back on the front panel. Reinsert the plastic cover.

Fujitsu has developed a DOS/Windows and a Macintosh application file using Microsoft EXCEL 4.0 and Excel 5.0 to assist you in printing the templates. These files are available for no charge via our World Wide Web site at http://www.fnc.fujitsu.com.

For use with the printing application, Fujitsu has included a laser printer compatible paper template in the SRS-1050 User's Guide. As an alternative, you may print, type, or write in the needed designation on the template. Additional templates may be purchased from your distributor or from Fujitsu.

Do not remove the perforated display window from the template until after printing.

All other loose materials must be removed before placing the template in the laser printer. Failure to remove loose materials may result in a paper jam in the printer. Templates are fed via the manual feed tray.

Please address questions about the program to FNC TAC, at 1-800-228-ISDN.

Fujitsu Terminal Equipment Termination Resistors (TR)

Fujitsu ISDN phones have a Terminating Resistor (TR) switch on the back of the set. The options are ON and OFF.

NOTE: The default setting for the Fujitsu TR switch is the OFF position.

Fujitsu TR's are equivalent to 100 Ohms in the ON position. Refer to the following discussions for TR setting recommendations.

NT1 Settings

Termination

Many NT1's have settings available to turn Termination ON or OFF. If the setting is ON they may also have settings to select either 50 or 100 Ohms.

Sometimes these settings are accomplished via switches, other times they are done with jumpers.

Follow the NT1 manufacturer instructions to set the Termination to ON or OFF as needed.

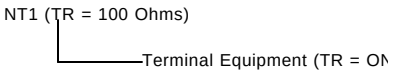
Timing

NT1's also have a timing setting with the options FIXED or ADAPTIVE.

On some NT1's the options may be labeled PB or PTP. PB is equivalent to FIXED and PTP is equivalent to ADAPTIVE. Timing settings in the following discussions are based on NT1 manufacturer recommendations.

Single Unit Installations

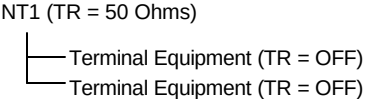
The maximum distance between the NT1 and the ISDN Terminal Equipment is 3000 feet in a single unit installation. The TR switch on the Terminal Equipment should be ON. The TR switches on the NT1 should be set at On at 100 Ohms. NT1 timing should be set to ADAPTIVE (or PTP).



Two Unit Installations

Bridging at the NT1 – Maximum Distance Between NT1 and Units is 250 ft.

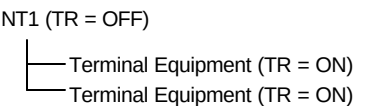
The overall maximum length of the cable is 1600 ft. The TR switch on both Terminal Equipment Units should be OFF. The TR switches on the NT1 should be set to ON at 50 Ohms. NT1 timing switches (if present) should be set to FIXED or (PB).



Two Unit Installations

Bridging at the NT1 – Distance Between NT1 and Units is Greater Than 250 ft.

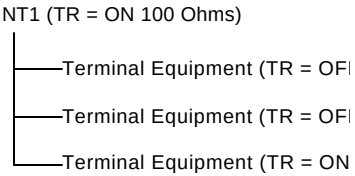
The overall maximum length of the cable is 1600 ft. The TR switches on both Terminal Equipment Units should be ON. The TR switched on the NT1 should be set to OFF. NT1 timing switches (if present) should be set to FIXED or (PB) when the distance between the NT1 and the Terminal Equipment is 400 ft or less for level 3 wire, or 600 ft for level 5 wire. Longer loops require ADAPTIVE (or PTP).



Multiple Unit Installations

Bridging at the NT1

The overall maximum length of cable is 1600 ft. The TR switch on the Terminal Equipment farthest from the NT1 should be ON. The TR switches on all other Terminal Equipment should be OFF. The TR switches on the NT1 should be set to ON at 100 Ohms. NT1 timing switches (if present) should be set to ADAPTIVE (or PTP).



System Administrator's Reference
Feature Activator and Button Placement

Subscribed Feature	Assigned FA/FI	SRS-1050 Button
3 way conference	FA 18/FI 18 FA 60/FI 60	18 18
Drop	FA 19/FI 19 FA 62/FI 62	19 19
Transfer	FA 20/FI 20 FA 61/FI 61	20 20
Message Waiting	FA 63/FI 63	Message waiting LED
Bridge Call Exclusion	FA XX/FI XX FA 59/FI 59	XX 17
Privacy (Bridged Call Exclusion)	FA XX/FI XX FA 58/FI 58	XX 16
Call Forwarding Variable	FA XX/FI XX FA 57/FI 57	XX 15

Notes

APPENDIX C

TESTING

The SRS-1050 has a self-test mode that performs the following tests:

- LED test
- Key test
- Tone test
- LCD test
- Memory tests
- NT1 line test

ENTERING TEST MODE

To enter test mode, follow these steps:

1. Unplug the ISDN line from the LINE jack or the power plug from the 40 V DC jack if you are using the DC power supply.

2. Press and hold down both 1 and 3 on the numeric keypad as you reapply power. Keep them down until the automatic LED test begins.

The LED test is described in the next section. While the test is running, this screen is displayed:

```
SELF TEST (LED)
. . . . . .
. . . .
```

When the LED test is complete, this screen appears:

```
SELF TEST (KEY TEST)
. . . . . .
. . . . .
```

The set cannot originate or receive a call during the self-test.

You exit test mode by removing power and then reapplying it.

PERFORMING TESTS

The following sections summarize the self-tests that you can perform on the SRS-1050 Digital Set.

LED Test

The LED test is done first automatically. It turns all but the data LEDs red for one second, off for one second, green for one second (except MSG), and finally off again. Observe the LEDs for malfunctions.

When the LED test is complete, you can start any of these tests:

- Press 1 to start the Tone test.
- Press 2 or 3 to start the LCD tests.
- Press 4 to start the Memory/Line test.

- Press 5 to start the Program and Loop switch test (with optional data terminal adapter only).

These tests are described in the sections below. Tests 1, 2, 3, and 5 can be started and interrupted at will to change the test under way, but test 4 cannot be interrupted by pressing any key.

Key Test

Pressing any button other than 1 through 5 sounds its associated confirmation or DTMF tone, turns its LED red (if it has one), and displays the following information on the LCD:

For the keys:	This information is displayed:	With the range and meaning shown here:
Soft keys	SOFTWARE Key X	X=1:SOFT1 2:SOFT2 3:SOFT3 4:SOFT4
Key Menu Key	Key Menu	Key Menu Key
Multifunction buttons	MULTI ASSIGN KEY nn	nn: 1 to 18 (key no.)
Fixed function buttons	FUNCTION KEY 1	DROP
	FUNCTION KEY 2	TRANSFER
	FUNCTION KEY 3	HOLD
	FUNCTION KEY 4	CONFERENCE
	FUNCTION KEY 5	REDIAL
	FUNCTION KEY 6	SPEAKER
DTMF keypad keys	TEN KEY X	X=(5), 6, 7, 8, 9, 0, #, and *

(DTMF keys 1, 2, 3, 4, and 5 (with data terminal adapter installed) are reserved for test selection and not displayed on the LCD.)

Tone Test

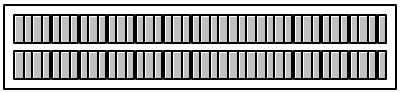
When you press 1 on the DTMF keypad, the speaker sounds a Ringer Tone. If you pick up the handset, the ringing stops and a Busy tone is sent to the handset.

The LCD shows the following display:

SELF TEST (TONE)
. . . . . .

LCD Test

When you press the 2 on the DTMF keypad, the LCD displays a pattern of dark characters. Missing dots, if any, will be evident.



When you press the 3 on the DTMF keypad, the LCD displays the first set of display characters supported by the set. Press 3 again to display the rest of the supported display characters.

To exit from either test, press any multifunction key, softkey, or DTMF key.

Memory Tests

Pressing 4 on the numeric keypad starts an automatic sequence of tests, performing memory and line tests in order.

The first of these tests writes to and reads from all RAM locations. If any error is detected, the test sequence stops at that point and reports by displaying an error code on the display; for example,

SELF TEST (MEMORY/LINE TEST)
ERROR CODE (06)

(06) is only one example. Other codes may appear in its place if different errors are discovered.

Any error code display reflects an error condition to be handled by your System Administrator.

No other test requests are allowed during this test. If any error is detected, the test sequence stops at that point and reports by displaying an error code.

When the RAM test terminates successfully, the Digital Set goes immediately to the ROM access test. Upon detection of an error, the sequence stops and an error code is displayed.

When the ROM access test terminates successfully, the DTE interface circuit test starts automatically on sets that have the optional data terminal adapter. An error in this test is reported by an error code in the LCD display.

When the DTE test terminates successfully, the NT line test starts automatically. An error in this test is reported by an error code in the LCD display.

If all tests terminate successfully, the following display shows on the LCD:

SELF TEST (MEMORY/LINE) VOICE & DATA ALL GOOD	SELF TEST (PROGRAM SW/LOOP SW) PROG RAM: OFF LOOP:NOR

Program and Loop Switch Test

If your SRS-1050 has the optional data terminal adapter, pressing 5 displays the status of the Program (PRG) and Loop switches that are a part of the TA. The display looks like this:

Pressing the Program switch on the back of the set changes PROG RAM: OFF to PROG RAM: ON. Pressing the Loop switch changes LOOP: NOR to LOOP: TEST. See your *Data User's Guide* for the function of these switches.

Exiting Test Mode

To exit test mode, remove power and reapply it.

Table C-1 Self-Test Result Codes

Display Message	Test Result
S/M ERROR CODE (01)	SMCM, RAM, ROM test failed.
S/M ERROR CODE (02)	Line SIU test failed.
S/M ERROR CODE (03)	Line SIU test timed out.
S/M ERROR CODE (04)	Line NT test failed; message received does not match message sent.
S/M ERROR CODE (05)	Line NT test timed out.
S/M ERROR CODE (06)	Line NT test failed; no response received.
S/M ERROR CODE (07)	SMCM test timed out.
S/M ERROR CODE (07)	SMCM, RCM test timed out.
RCM (02)	
RCM ERROR CODE (01)	RCM RAM test failed.
RCM ERROR CODE (02)	RCM test timed out.
VOICE ALL GOOD	All tests passed.
VOICE & DATA ALL GOOD	All tests passed (with data terminal

adapter).

APPENDIX D

ISDN CALL IDENTIFICATION (ICI) DISPLAYS

ACB(*)..... Automatic callback
Brg(*)..... Call barged in on
CFA(*)..... Call forwarding all calls
CFB(*)..... Call forwarded because busy
CFN(*)..... Call forwarded because no answer
DCDL(*)..... Direct connect line
Emr(*)..... Emergency call
Err(*)..... Error
FXn(*)..... Foreign exchange trunk, where n = 1 to 8
Hld(*)..... Call on hold
Icm(*)..... Intercom call
InI(*)..... Incoming call internal
InX(*)..... Incoming call external
LNn(*)..... Listed directory number, where n = 1 to 8
OnL(*)..... On another line call; unanswered call forwarded because called party was on another CA
OuI(*)..... Outgoing call internal
OuX(*)..... Outgoing call external
Pck(*)..... Call picked up
PNw(*)..... Private network
Pri(*)..... Priority call
RbQ(*)..... Ringback queuing call
Spl(*)..... Split
Tin(*)..... Tie trunk n, where n = 1 to 8
WTn(*)..... WATS band n, where n = 1 to 5

(*) An asterisk in the display means this call's Directory Number appearance is shared with another ISDN station, at which this Directory Number is primary. The primary user of this Directory Number may be busy on another call that you do not see on this station.

Notes

APPENDIX E

ERROR MESSAGES

Various messages are displayed to describe connection or command status. Tables E-1 (circuit-switched) and E-2 (packet-switched) show connection status messages.

Table E-1
Connection Status MessagesBCS (Circuit-Switched)

Cause #	Message Displayed	Description
001	INVALID NUMBER	Unassigned number
002	NO ROUTE	No route to specific network
003	NO ROUTE	No route to destination
006	CHANNEL UNACCEPTABLE	Not acceptable for use by switch
016		Normal; clearing
017	BUSY	Called user busy
018	NOT ANSWERED	Called user not responding
019	NOT ACCEPTED	User alerted; no answer
021	CALL REJECTED	Call rejected
022	NUMBER CHANGED	Number called has been changed
026	NOT SELECTED	Non-selected user clearing
027	OUT OF ORDER	Destination out or order
028	INVALID NUMBER	Format invalid or number incomplete
029	FACILITY REJECTED	Requested facility rejected
030		Response to station inquiry
031		Normal; unspecified
034	B-CHANNEL BUSY	No B-channel available
035		Call queued

Table E-1 Connection Status Messages (continued)

Cause #	Message Displayed	Description
038	OUT OF ORDER	Network out of order
041		Temporary failure
042	NETWORK BUSY	Network congested
043	ACCESS INFORMATION DISCARDED	User information discarded
044	REQUESTED CHANNEL NOT AVAILABLE	Exclusive channel cannot be used
047	RESOURCE UNAVAILABLE, UNSPECIFIED	Downloading facility not available
050	FACILITY N/A	Requested facility not subscribed
051	SERVICE NG	Service request incompatible
052		Outgoing calls barred
053	SERVICE NG	Service operation violated
054	CALLED BARRED	Incoming calls barred
057	BEARER TYPE NOT AUTHORIZED	
058	BEARER TYPE NOT PRESENTLY AVAILABLE	Bearer capability not presently available; try again
063		Service or option not available
065	BEARER TYPE NG	Bearer service not implemented
066		Channel type not implemented
069	REQUESTED FACILITY NOT IMPLEMENTED	Network cannot support requested facility
079		Service or option not implemented, unspecified

Table E-1 Connection Status Messages (continued)

Cause #	Message Displayed	Description
081	INVALID CALL REFERENCE VALUE	Call reference not currently in use
082		Identified channel does not exist
085	INVALID NUMBER	Invalid digit value for number
088	INCOMPATIBLE	Incompatible destination
091		Transit network does not exist
096	MANDATORY INFORMATION ELEMENT IS MISSING	
097	MESSAGE TYPE NON-EXISTENT OR NOT IMPLEMENTED	Message not recognized by switch
099	INFORMATION ELEMENT NON-EXISTENT OR NOT IMPLEMENTED	Message not recognized by switch
100	INVALID INFORMATION ELEMENT CONTENTS	Coding structure not implemented
101	MESSAGE NOT COMPATIBLE WITH CALL STATE	
102	RECOVERY ON TIMER EXPIRY	Procedure underway due to timer expiration
111		Protocol error, unspecified
127	INTERWORKING, UNSPECIFIED	Message meaning unknown to switch

Table E-2
Connection Status MessagesDPS (Packet Switched)

Display format	Description
DATA CLR DTE	DTE disconnected
DATA CLR OCC	Number busy
DATA CLR DER	Out of order
DATA CLR RPE	Remote procedure error
DATA CLR RNA	Reverse charging not accepted
DATA CLR NA	Incompatible destination
DATA CLR INV	Invalid facility request
DATA CLR ERR	Local procedure error
DATA CLR NC	Network congestion
DATA CLR NP	Number error

Each command reports its successful or unsuccessful execution. Errors usually result in a display of the word ERROR or ERR INC.

This error reporting also applies to the offline commands for setting terminal adapter parameter defaults. These defaults can be stored in a set of profiles, and you can choose which profile to apply to a port when making your data call.

The offline commands for these purposes are described in the *Data User's Guide*, along with each command's response and related messages.

Table E-3 National Standardized Cause Values

Cause #	Message Displayed	Description
004	VACANT CODE..... `	Unused area or central office code
008	PREFIX 0 DIALED IN ERROR	
009	PREFIX 1 DIALED IN ERROR	
010	PREFIX 1 NOT DIALED	
011	EXCESSIVE DIGITS RECEIVED, CALL IS PROCEEDING	Switch has truncated excessive digits and call is proceeding
051	CALL TYPE INCOMPATIBLE WITH SERVICE REQUEST	
053	SERVICE OPERATION VIOLATED	
101	PROTOCOL ERROR, THRESHOLD EXCEEDED	Call cleared due to excessive protocol errors

Table E-4 Network Specific Cause Values

Cause #	Message Displayed	Description
008	CALL IS PROCEEDING	Call cannot be cleared due to other users
013	SERVICE DENIED	
028	SPECIAL INTERCEPT ANNOUNCEMENT	
029	SPECIAL INTERCEPT ANNOUNCEMENT: UNDEFINED CODE	Announcement that access code is not defined
030	SPECIAL INTERCEPT ANNOUNCEMENT: NUMBER UNASSIGNED	Announcement that number is unassigned
031	SPECIAL INTERCEPT ANNOUNCEMENT: CALL BLOCKED DUE TO GROUP RESTRICTION	Announcement that call is blocked due to group restriction
090	SEGMENTATION ERROR	Parameter downloading message error
091	REASSEMBLY ERROR	Parameter downloading error
101	PROTOCOL ERROR, THRESHOLD EXCEEDED	Call cleared due to excessive protocol errors

Notes