ISDN

Digital Set User's Guide

SRS-2100

AT&T 5ESS

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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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-2100, when it is attached to an AT&T 5ESS switch.

This guide is for anyone interested in using the SRS-2100 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

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-2100. 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-2100 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          SATURDAY          MAY 10
UNA-LIST         DATA              CLEAR          DIR-LIST
```

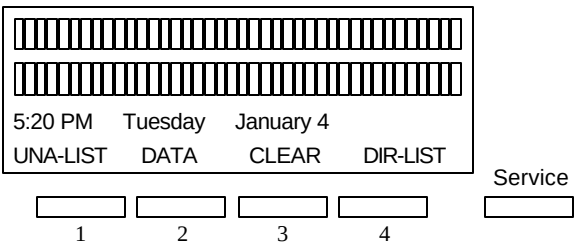
Helpful Tips About Your SRS-2100

Because ISDN technology is new, some features of your SRS-2100 may be unfamiliar. The next section describes some of these.

Softkeys

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.

The SRS-2100 softkeys are the four keys located just below the display. When you press the SERVICE button to their right, the display changes and REGISTER appears over the fourth softkey.



Standard Softkey Layout

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 REGISTER, 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-2100 data features, available with the voice/data version are described in Chapter 4. For more information, please see the *Data User's Guide*.)

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 data features of the SRS-2100 include the following capabilities:

- Communication on the D-channel using packet switching with an asynchronous RS-232 terminal at 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.

- Communications on the B-channel using circuit switching via an RS-232 connector for synchronous data transmission at speeds of 56,000 or 64,000 bits per second.

The supporting network data features must also be assigned to the line.

Multipoint configurations

In older phone installations, most phone connections are point-to-point. Each phone in a point-to-point configuration requires a separate line into your building. However, many service providers now offer multipoint configurations as a subscription option. ISDN supports both point-to-point and multipoint operation. 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-2100 to work on a multipoint line, it must have a valid Service Profile Identifier (SPID). The SPID number is usually entered when the SRS-2100 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 Chapter 3.

CAUTION: Once the SPID number is entered, don't change it unless your System Administrator tells you to do so. Your SRS-2100 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

An important person for you to know is your System Administrator, who may be your phone company representative or a member of your telecommunications department.

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.

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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-2100 are labeled and described in the accompanying text.

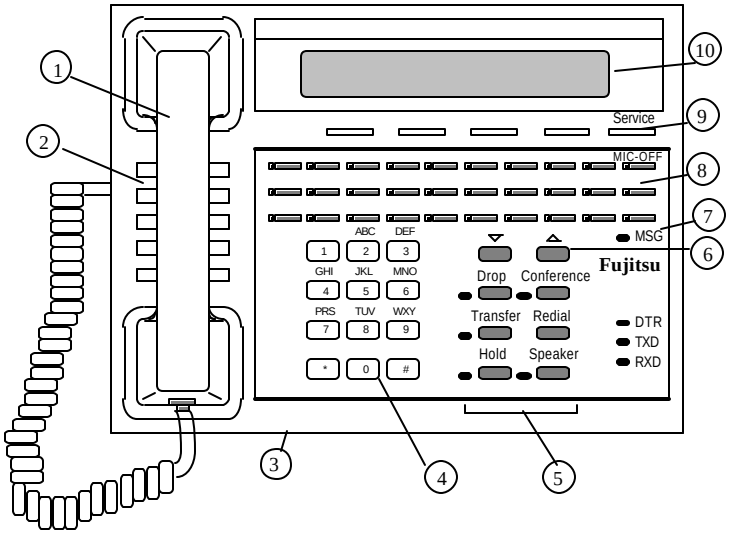


Figure 1-1: SRS-2100 Front Panel

Telephone Components

1) Handset/Headset. You pick-up the handset to speak or listen while making or answering calls, except when using a headset or the speaker and microphone.

2) Speaker. The speaker is located directly under the handset. In handsfree operation, it lets you hear the other parties in a telephone call.

3) Handsfree microphone. For use with speaker.

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

5) Function buttons. These buttons provide single-touch access to ISDN and SRS-2100 features.

6) Volume/Contrast buttons. If no Call Appearance (CA) is active, these buttons control display contrast. If a CA is active, they control speaker or handset volume.

7) Message waiting lamp. Indicates a message is waiting.

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

9) Softkeys/SERVICE. The softkeys below the display control changeable functions. Pressing SERVICE displays the REGISTER label on line 4 of the display. Pressing REGISTER displays the menu functions of the softkeys.

10) Display. The display shows call information, the calendar/clock, messages, and menus used to set up local features.

Function Keys

SPEAKER
Enables/disables handsfree operation

HOLD
Holds an active call

REDIAL
Redials the last number you dialed

CONFERENCE
Adds parties to an existing call

DROP
Disconnects last party added to a conference call or disconnects a two-party call

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

The multifunction button at the upper right usually serves as a MIC-OFF key, which turns the microphone on or off in handsfree or handset mode.

LED Indicators

Data Communications

DTR	Data Terminal Ready
TXD	Transmit Data
RXD	Receive Data

Message Waiting
An LED labeled MSG, located toward the lower-right of the multifunction buttons.

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 that flashes green for incoming calls, flashes red if a call is on hold, and remains steady red when a call is active.

The LEDs next to each button and function key have three possible states: red, green, or off. When lit red or green, these LEDs can be on steadily or can flash at varying speeds to signal certain conditions, such as call on hold or feature in use.

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.

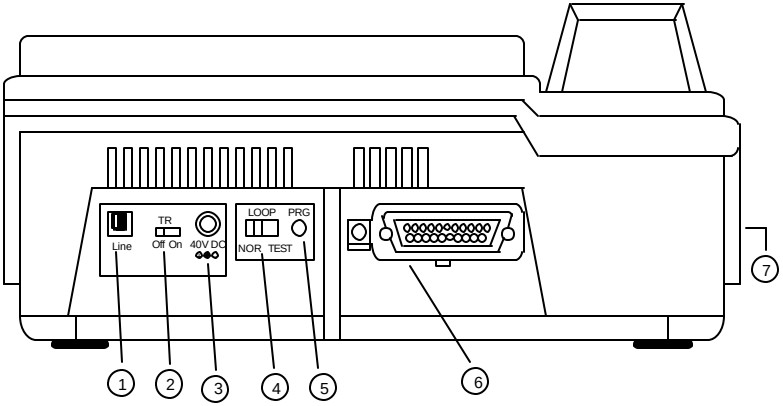


Figure 1-2: Digital Set Rear View

Switches and Connectors

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

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

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

4) Loopback test switch. This switch, labeled "LOOP", places the set in DATA loopback mode. Loopback is a test for data transmission, so this switch is available only if you have a voice/data model.

5) 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.

6) Data connector. This 25-pin female connector (DB25) appears only on voice/data models. This connector, labeled "DTE", is the interface connector for data transmission.

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

MULTIFUNCTION BUTTONS

There are three types of multifunction buttons. The purpose of each type is:

One-touch
Dial a number you stored there

Feature
Activate/deactivate a special network feature, such as call forwarding

Call Appearance (CA)
Handle incoming or outgoing calls

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.

You use Call Appearance (CA) 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 mutes the speaker or handset microphone, allowing you to hold a private conversation. See the section titled 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.

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

Multiple Directory Number Appearances

Each SRS-2100 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 at the beginning of the next row up.)

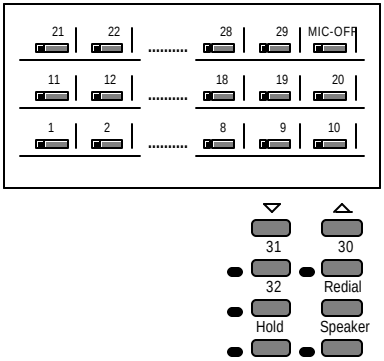


Figure 1-3: Multifunction Button Layout

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-2100 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 buttons assigned to the number 747-3482. This could, for example, be a shared line using someone else's primary Directory Number.

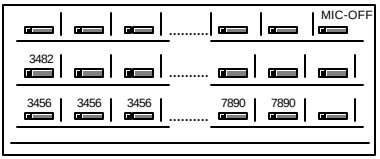


Figure 1-4: Example Line Assignment

Call Handling Example with Multifunction Buttons

Suppose your Directory Number is 747-3456, and the first three multifunction buttons on your SRS-2100 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 747-3456 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

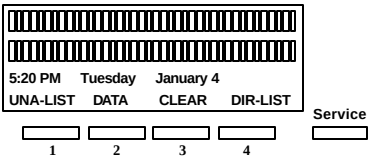
```
1=747-3456                          (Line 1)
.....                               (Line 2)
12:55PM  TUESDAY  MAY 5             (Line 3)
.....                               (Line 4)
```

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 E 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 end of line 2 shows call duration timing as minutes and seconds in the form mm:ss. 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".

```
1=919  555-2345                     (Line 1)
.....                               (Line 2)
12:55 PM   TUESDAY  MAY 5           (Line 3)
.....                               (Line 4)
```

SOFTKEYS AND SERVICE



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data model.)

When you press SERVICE, line 4 of the display changes to show REGISTER above softkey 4. Pressing REGISTER displays the menu function of the SRS-2100. These keys are called softkeys because the functions they control change as you use the menus to set up different features.

Note: In the Menu mode, displayed by pressing SERVICE, and then REGISTER, softkey 1 also serves as the ENTER key (for entering information as indicated in this User's Guide).

These basic softkey functions are explained in the indicated chapters:

UNA-LIST	Chapter 2
CLEAR	Chapter 3
DIR-LIST	Chapter 3
ENTER	Chapter 3
REGISTER	Chapter 3
NEXT	Chapter 3
DATA	Chapter 4

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

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CHAPTER 2

INTRODUCTION TO VOICE FEATURES

The Fujitsu SRS-2100 provides superior call-handling and simultaneous voice/data communications. It is one of the family of Fujitsu Integrated Services Digital Network (ISDN) terminals.

This chapter explains how to use the voice features of the SRS-2100. For the familiar tasks of dialing, holding, and answering calls, this phone operates like others you have used. However, it also includes many special features which are explained in this chapter.

LINE PARAMETERS

When your line was installed, choices were made on three important parameters that affect your call handling and the LEDs associated with your lines.

The first choice, called preference, affects what happens when you have at least one idle Call Appearance (CA) and an incoming call flashing on another CA. When you pick up the handset or press SPEAKER, the phone can automatically connect you with the incoming call, based on the configuration choice recorded with your telephone service provider.

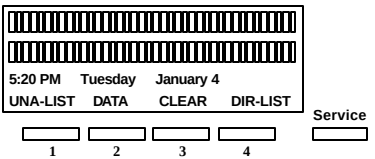
The second choice, called autohold, affects what happens when you are on an active call on one CA and then press another CA. The active call you were on can be dropped or held automatically. If it is dropped, the LED goes dark. If it is held, the LED flashes red. Your phone will consistently drop or hold your active call when you press another CA, based on the configuration choice recorded with your telephone service provider.

The third choice, called onetouch, affects whether handsfree operation is automatically selected when you press an idle CA, causing you to hear a dial tone through the speaker. Your phone will consistently remain in handset mode or automatically enter handsfree operation, based on the configuration choice recorded with your telephone provider.

The term "onetouch" used here refers to a network feature. The term "one-touch" used through the remainder of this guide refers to an SRS-2100 feature that stores a phone number for a button.

To simplify presentations in this guide, the text assumes that handsfree operation is automatic when you press an idle CA, that is that onetouch is "yes". If your installation is different, then to get a dial tone after pressing an idle CA you must either press SPEAKER for handsfree operation or lift the handset.

If you have any questions about your phone system setup, see your System Administrator.



Standard Softkey Layout

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

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

PLACING AND RECEIVING CALLS

This section describes how to make and answer calls with your SRS-2100 using the handset, speaker, or a headset. (Headset setup is described in Chapter 3.) Each of the sets 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

Following the final procedure listed above is a general procedure for placing calls to a leased network. You can place a call to a leased network in any of the above modes.

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. In addition to improving handsfree operation, the MIC-OFF key functions as a mute key for the handset microphone.

This feature is set “active” by default when you receive your SRS-2100. If for some reason this feature is not active, see the section 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

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 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. Pressing the MIC-OFF button will turn off the handset microphone.

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 another Call Appearance button, which will give you a dial tone again. It will also either hang up on the call you made or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

   or

   c. Press DROP to hang up and get a new dial tone on the same Call Appearance.

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. Press DROP to hang up and get a new dial tone on the same Call Appearance.

   or

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

or

d. Press an idle Call Appearance button to get a dial tone. This will either hang up on the active call or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

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 an idle Call Appearance button which will give you a dial tone.

or

c. Press DROP to hang up and get a new dial tone on the same Call Appearance.

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

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

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

or

b. 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. If this does not connect you with the incoming call, press the green-flashing Call Appearance button.

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.

   or

   c. Press the green-flashing Call Appearance button to answer the incoming call. This will either hang up on the active call or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

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.

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

Placing Handsfree Calls

A handsfree call uses the integrated microphone and speaker instead of the handset. The procedure below assumes that the MIC-OFF (mute) key feature is active. If not, the microphone is always on.

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, you can use either of the following methods to hang up:

   a. Press SPEAKER.

   or

   b. Press DROP to hang up and get a new dial tone on the same Call Appearance.

   or

   c. Press an idle Call Appearance button, which will normally give you a dial tone.

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

The procedure below assumes that the MIC-OFF key feature is active. If not, the microphone is always on.

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

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

   or

continued

b. Press HOLD to save the active call so you can return to it later. Then press SPEAKER again to get a dial tone.

or

c. Press an idle Call Appearance button to get a dial tone. This will either hang up on the active call or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

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

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

a. Press the SPEAKER button.

or

b. Press an idle Call Appearance button, which will normally give you a dial tone.

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. 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 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.

The procedures described in this section assume that the MIC-OFF key feature is active. If not, the microphone is always on.

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. Hang up by pressing the SPEAKER or DROP button, ending the currently active call. Then press the green-flashing Call Appearance button to answer the incoming call.

   or

   b. Press HOLD to save the active call so you can return to it later. Then press the green-flashing Call Appearance button to answer the incoming call.

   or

continued

c. Press the green-flashing Call Appearance button to answer the incoming call. This will either hang up on the active call or automatically put it on hold, depending on your installation. Your System Administrator can tell you which occurs.

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, you can hang up as follows:

   a. Press the SPEAKER button.

   or

   b. Press an idle Call Appearance button, which will normally give you a dial tone.

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 or DROP. Then press SPEAKER again to get a dial tone.

   or

   b. Press an idle Call Appearance button to get a dial tone. This will either hang up on the active call or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

   or

   c. Press HOLD to save the active call so you can return to it later. Then press SPEAKER again to get a dial tone.

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

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

   a. Press the SPEAKER button.

   or

b. Press an idle CA button, which will normally give you a dial tone.

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 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 the green-flashing Call Appearance button. (In some installations, pressing the SPEAKER button will work also.)

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 or DROP button. Then press the green-flashing Call Appearance button to answer the incoming call.

   or

   b. Press HOLD to save the active call so you can return to it later. Then press the green-flashing Call Appearance button to answer the incoming call.

   or

   c. Press the green-flashing Call Appearance button to answer the incoming call. This will either hang up on the active call or automatically place it on hold, depending on your installation. Your System Administrator can tell you which occurs.

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".)

PLACING A CALL TO A LEASED NETWORK

To call someone in a leased network from outside the network, you must enter an access code. Also, you must have some way of indicating to the ISDN switch that the numbers you are entering represent a leased network access code. You accomplish this by entering a delimiter.

Before you can perform these procedures, you must complete the procedure to assign one of your multifunction buttons as the leased network access code delimiter key. See Chapter 3 for this procedure.

You can use either of two methods to place a leased network call.

Method 1

Do not pick up the handset or press SPEAKER button to dial a leased network number. You must enter all numbers before you go off-hook.

1. Dial the number of the person you want to call. As always, the number you dial appears on the first line of the screen.

2. Press the access code delimiter button. A colon appears on the screen after the number.

3. Dial the leased network access code. The access code appears on the screen after the colon.

4. To start the call, pick up the handset or press the SPEAKER button. Your digital set automatically sends the entered numbers and code to connect to the leased network number.

Method 2

Do not pick up the handset or press SPEAKER button to dial a leased network number. You must enter all numbers before you go off-hook.

1. Press the access code delimiter button. A colon appears on the first line of the screen.

2. Dial the leased network access code. The access code appears on the screen after the colon.

3. Press the delimiter key again. Another colon appears on the screen after the access code.

4. Dial the number of the person you want to call. The number appears on the screen after the second colon.

5. To start the call, pick up the handset or press the SPEAKER button. Your digital set automatically sends the entered numbers and code to connect to the leased network number.

FUNCTION BUTTONS

The SRS-2100 has six function buttons, located to the right of the numeric keypad and arranged as shown below.

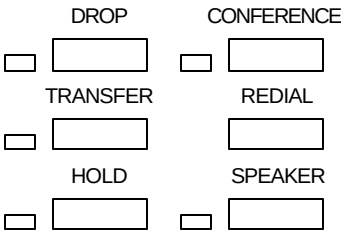


Figure 2-1: Function Buttons

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 or disconnects a two party call and provides a new dial tone on the same CA

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

SPEAKER

Enables placing and receiving handsfree calls

These procedures assume that the MIC-OFF key feature is active. If not, the microphone is always on.

Making a call using the speaker and microphone

1. Press an idle CA or the SPEAKER button. The associated LED will light and you will hear a dial tone from the speaker.

2. Dial the desired number by pressing the numeric keys. You will hear the ringing tones through the speaker.

3. If your call is answered, converse with the calling party. You can turn off the microphone by pressing the MIC-OFF key; its LED will turn red. No sound will then be transmitted to the other party, allowing you to have a private conversation with others in the room.

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

Receiving a call using the speaker and microphone

1. Press the button next to the green-flashing Call Appearance.

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

Ending a handsfree call using the speaker and microphone

You can hang up as follows:

a. Press SPEAKER. The call duration vanishes after about three seconds.

or

b. Press and idle Call Appearance button. This gives you a dial tone again and ends or holds the original call.

Switching from handsfree to handset use

Pick up the handset from its cradle. The use of the speaker and microphone ends, and all sounds go through the handset only. (If the handset remained out of the cradle during your handsfree call, you must press SPEAKER to switch back to handset use.)

Switching from handset use to handsfree

Press the SPEAKER button and replace the handset in its cradle. You may now converse with the called or calling party using the speaker and microphone.

REDIAL

Dials the last number dialed on this phone

REDIAL lets you redial the last number dialed with the 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.

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 3 parties

Adds a third party to an existing Call

To use CONFERENCE (after first establishing an initial call):

1. Press CONFERENCE. The first party is automatically placed on hold, and that Call Appearance's LED flashes red.

   An idle Call Appearance for the holding Directory Number is automatically selected, if available. Its LED turns steady red and a dial tone sounds.

   If that Directory Number has no idle Call Appearance, press a Call Appearance of another Directory Number.

2. Dial the third party, or press any Call Appearance that is ringing or on hold except the conference hold. Converse privately with the party on that line.

3. Press CONFERENCE again. All three parties are now connected. The display shows the number of parties on the call (3) as follows:

```
1= CONFERENCE  3
. . . . . .
. . . . . .
12:55AM  SUNDAY  MAY 26   02:23
```

Disconnecting the last party added

Press DROP. Your connection with the original party is retained.

Your installation may subscribe to six-party conferencing. Check with your System Administrator for details.

DROP

Cancels connection with the last party called or added to a call

Using DROP on a Two-party Call that you originated

Pressing DROP at the end of a regular two-party call disconnects the call. A new dial tone is provided on the same CA. The display of the call's duration remains for about three seconds.

Using DROP on a Multi-party Call

Press the DROP key to end your connection with the last party you added to the call, but any others on the call stay connected. The display of the call's duration continues until the call is over. If you press DROP to end the last connection, the duration is displayed for about three seconds past the end of the call. A new dial tone is provided on the same CA.

Note: When the person who originates the conference call presses DROP, the last party added is dropped from the call. When any called party presses DROP, it terminates that party's connection with the conference call.

TRANSFER

Connects the caller with a different party

You can transfer an active call to another party and hang up. The called or calling parties remain connected.

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 for the holding Directory Number is automatically selected, if available. 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, or press any Call Appearance that is ringing or on hold (except the one held for transfer).

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.

Questions, Details, or Alternatives

If no one answers the destination number, press the Call Appearance button holding the original call. This cancels the attempted transfer and returns you to the call.

MIC-OFF

Lets you mute the handsfree or handset microphone, or reactivate it

To use this feature, MIC-OFF must be active on the multifunction button in the upper-right corner of the multifunction button array - button 30. Button 30 may be used as a one touch button or for a Leased Network Access code delimiter, if it is not activated as “MIC-OFF”. If it is not, see Activating the MIC-OFF key in Chapter 3 for the activation procedure.

The microphone built into the SRS-2100 is automatically turned on when you enter handsfree mode, for example by pressing SPEAKER. It stays on throughout all of your handsfree calls unless you press MIC-OFF, as described below.

The MIC-OFF button may also be used to deactivate or activate the handset microphone.

To mute the microphone while in handsfree operation, press MIC-OFF.

The associated LED will turn red. You can still hear the called or calling party, but no sound will be transmitted from your phone. This allows you to have a private conversation with others in the room. Once turned off, the microphone stays off, even after you start a new handsfree call, until you press MIC-OFF again.

To turn the microphone on again and resume your conversation, press MIC-OFF again.

The MIC-OFF key LED goes out. You can now continue the conversation. Once turned on, the microphone stays on until you press MIC-OFF again, or pick up the handset.

The MIC-OFF key may be used in the same way to "mute" the microphone on a handset call or to reactivate the handset microphone.

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-2100 selects an idle Call Appearance, 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.

If there are no idle CAs available, pressing the one-touch button 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.)

When the call is answered, you can pick up the handset or continue to use the speaker and microphone.

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

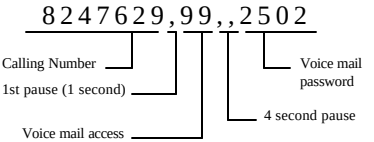
You can store a special code on its own one-touch button just as you do an ordinary telephone number. Once you establish an active call, you can press the one-touch button to send the special code. These numbers are sent using the standard DTMF tones that these systems normally require.

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-2100 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 one-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

Programming a One-touch Button for Leased Network Access

To call someone in a leased network from outside the network, the number must include a leased network access code. You can program a single one-touch button for both the access code and the telephone number. See the One-touch section in Chapter 3 for details.

Before you can program a one-touch button for a leased access number, you must complete the procedure to assign a multifunction button as a leased network access code delimiter key. This procedure is in Chapter 3.

UNANSWERED CALL LOGGING (UNA-LIST)

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

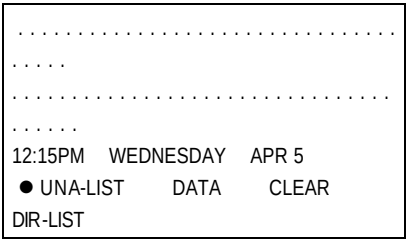
The UNA-LIST feature records information from the eight most recent unanswered calls, showing the date, the time, and the telephone number and name (if provided) of the calling party.

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.

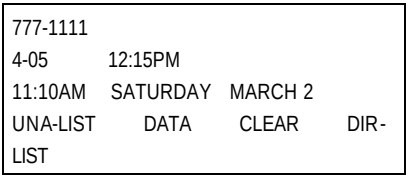
Chapter 3 explains how to program your phone to support or suppress the UNA-LIST feature.

Using the UNA-LIST Feature

If you have unanswered calls, a black dot appears next to the word UNA-LIST on line 1 of your SRS-2100 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-LIST (softkey 1). The resulting screen looks something like this:



The 777-1111 is the number of the calling party.

Each time you press UNA-LIST (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-LIST 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-LIST 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-LIST 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-LIST

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

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CHAPTER 3

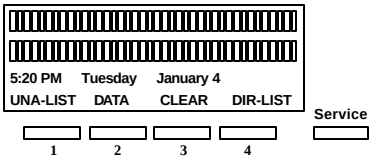
LOCAL FEATURES

This chapter explains how to use the display and softkeys to set the features controlled by the SRS-2100. 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:

- Setting ringer volume, tone, and operating modes
- Programming one-touch buttons
- Setting the calendar/clock
- Reinitializing the phone
- Enabling unanswered call logging (UNA)
- Selecting handsfree (speaker), handset, or headset operation
- Using call announce intercom
- Using Q.931 message logging
- Activating or deactivating the MIC-OFF button

Examples of mistake correction while setting local options in menu mode are shown.

Note: Option 8 (SPID ASSIGNMENT) in menu mode is an installation function usually performed by your System Administrator or phone maintenance personnel.



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data model.)

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

MENU MODE OPERATIONS

The SRS-2100 has a 12-item menu from which you select options to change SRS-2100 local features.

Some of the data entry screens in menu mode procedures have built-in timers. If you do not enter information within 6 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 REGISTER (softkey 4) to return to the menus and start over.

Selecting a Menu Option

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

1. Press SERVICE, then REGISTER (softkey 4) to display the menu options. The screen looks like this:

```
SELECT ITEM                    (1-12)
1: ONE-TOUCH     2: CALENDAR/CLOCK
3: INITIAL       4: UNA-LIST SERVICE
MODE
ENTER     NEXT     CLEAR
REGISTER
```

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

```
SELECT ITEM                    (1-12)
5: HANDS-FREE MODE   6: HAND-SET
MODE
7: RINGER MODE       8: SPID ASSIGNMENT
ENTER     NEXT     CLEAR
REGISTER
```

Press NEXT again to see the third menu:

```
SELECT ITEM                    (1-12)
9: MESSAGE LOGGING      10: USER CODE
KEY
11: INTERCOM FEATURE 12: MIC MUTE
MODE
ENTER     NEXT     CLEAR
REGISTER
```

Press NEXT repeatedly to cycle through the menus.

2. To select the option you want, press the appropriate key(s) on the numeric keypad to dial 1 to 12 (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 REGISTER (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 REGISTER 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 REGISTER. For example, you can abbreviate the key sequence REGISTER NEXT 7 ENTER to REGISTER 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.

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 to flash green the LED of the receiving Call Appearance button 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 REGISTER (softkey 4) to return to the normal display.

Setting Ringer Volume

To set the ringer volume, follow these steps:

1. Press SERVICE, then REGISTER (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE - SELECT ITEM (1-4)
1: RINGER VOLUME  2: RINGER TONE
3: RINGING              4: RINGER
PATTERN
ENTER     NEXT     CLEAR
REGISTER
```

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

```
RINGER VOLUME MODE
CURRENT MODE IS MEDIUM
. . . . . .
. . . . .
ENTER      NEXT      CLEAR
REGISTER
```

3. Press ENTER again and this menu appears:

```
SELECT ITEM                    (1-3)
1: SOFT          2: MEDIUM
3: HIGH
ENTER      NEXT      CLEAR
REGISTER
```

4. 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.

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

The screen shows your selection plus the word COMPLETED:

```
RINGER VOLUME MODE
  CURRENT MODE IS SOFT
   COMPLETED
ENTER      NEXT      CLEAR
REGISTER
```

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

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

Setting Ringer Tone

To set the ringer tone, follow these steps:

1. Press SERVICE, then REGISTER (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE - SELECT ITEM (1-4)
1: RINGER VOLUME  2: RINGER TONE
3: RINGING              4: RINGER
PATTERN
ENTER     NEXT     CLEAR
REGISTER
```

2. Press 2, ENTER (softkey 1) and this screen appears:

```
RINGER TONE MODE
CURRENT MODE IS MEDIUM
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

3. Press ENTER again and this menu appears:

```
SELECT ITEM                (1-3)
1: LOW              2: MEDIUM
3: HIGH
ENTER     NEXT     CLEAR
REGISTER
```

4. 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.

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

The screen shows your selection plus the word COMPLETED:

```
RINGER TONE MODE
CURRENT MODE IS HIGH
  COMPLETED
ENTER      NEXT      CLEAR
REGISTER
```

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

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

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 SERVICE, then REGISTER (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE - SELECT ITEM (1-4)
1: RINGER VOLUME  2: RINGER TONE
3: RINGING              4: RINGER
PATTERN
ENTER      NEXT      CLEAR
REGISTER
```

2. Press 3, ENTER (softkey 1) again and this screen appears:

```
RINGING MODE
CURRENT MODE IS BELL
```

```
. . . . . .
. . . . .
ENTER      NEXT      CLEAR
REGISTER
```

3. Press ENTER again and this menu appears:

```
SELECT ITEM                (1-2)
1: BELL                2: SILENT
. . . . . .
. . . .
ENTER      NEXT      CLEAR
REGISTER
```

4. 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:

```
RINGING MODE
CURRENT MODE IS BELL
 COMPLETED
ENTER      NEXT      CLEAR
REGISTER
```

5. To return to the normal display, press REGISTER (softkey 4).

To change another setting, you can press asterisk (*) to return to the Service 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 SERVICE, then REGISTER (softkey 4), 7, ENTER (softkey 1). This screen appears:

```
RINGER SERVICE MODE - SELECT ITEM
(1-4)
1: RINGER VOLUME  2: RINGER TONE
```

```
3: RINGING          4: RINGER
PATTERN
ENTER    NEXT    CLEAR
REGISTER
```

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

```
RINGER PATTERN MODE
CURRENT MODE IS MUTE RING
. . . . . .
. . . .
ENTER    NEXT    CLEAR
REGISTER
```

3. Press ENTER again and this menu appears:

```
SELECT ITEM                (1-2)
1: MUTE RING       2: ONE RING
. . . . . .
. . . .
ENTER    NEXT    CLEAR
REGISTER
```

4. Select 1 for a mute ring, a normal ring pattern at reduced volume, or 2 for one ring, which rings once at normal volume. The LED for the incoming Call Appearance will continue to flash. Then press ENTER. The screen shows your selection plus the word COMPLETED:

```
RINGER PATTERN MODES
CURRENT MODE IS ONE RING
  COMPLETED
ENTER    NEXT    CLEAR
REGISTER
```

5. To return to the normal display, press REGISTER (softkey 4).

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

PROGRAMMING A BUTTON FOR ONE-TOUCH DIALING

Any buttons that are not assigned as Call Appearances or feature activators may be programmed as One-touch buttons. You can program these buttons to play back 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 if required
- Special codes such as a personal ID number or a voice mail access code, or a network access code
- A combination of a standard telephone number plus one or more special codes, with pauses between the elements to allow for system response time
- A leased network number, including the access code and access code delimiter

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

Before you can program a one-touch button for a leased network number, you must complete the procedure to assign a multifunction button as the leased network access code delimiter key. The procedure is described later in this chapter, (Assigning A Leased Network Access Code Delimiter).

Programming a One-touch Button

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

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

```
ONE-TOUCH
SELECT ASSIGN KEY
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

The indicators for previously assigned one-touch buttons will be green. The MIC-OFF key, if active, and the delimiter key, if assigned, will be red. Other buttons will all be dark, regardless of their other uses.

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

```
ENTER DIRECTORY NUMBER          (12)
. . . . . .
. . . . . .
ENTER      NEXT      CLEAR
REGISTER
```

The multifunction button's number is at the far right of line 1. 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          (12)
912229876543
. . . . . .
. . . . . .
ENTER      NEXT      CLEAR
REGISTER
```

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      (12)
8247629,99,,2502
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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.

Programming a Leased Network Number on a One-touch Button

To program a leased network number, use the keypad to enter the telephone number and access code and the assigned multifunction button to enter the access code delimiter. Enter the number in either of these two sequences:

Dial the number of the person you are calling; press the access code delimiter button; then dial the access code.

or

Press the access code delimiter button; dial the access code; press the delimiter button again; then dial the number of the person you are calling.

The example illustrates the first sequence. The access code delimiter appears as a colon.

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

```
ENTER DIRECTORY NUMBER        (12)
8247629:33827
    COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

5. Complete the procedure in one of these ways:

To return to the normal display, press REGISTER (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 the assigned one-touch button (it shows a green indicator), and then press the replacement numbers on the keypad, or clear the Directory Number by pressing CLEAR (softkey 3).

You can also leave the button as it was, by pressing another button or REGISTER (softkey 4).

If you press CLEAR, you can then choose one of the following:

a. Enter new keypad numbers, followed by ENTER (softkey 1). The button then has the new number stored.

or

b. Select another button to become one-touch, then do steps 3 & 4 from Programming a One-Touch Button. This leaves the original button with its old number.

or

c. Cancel the preset button by pressing ENTER. Its LED turns off. It is no longer a one-touch button. The following screen appears:

```
ENTER DIRECTORY NUMBER        (12)
8247629:33827
    COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

The word COMPLETED remains for 6 seconds.

2. You can then select another button to make one-touch and do steps 3 & 4 from Programming a One-Touch Button.

3. To return to the menu screen after the word COMPLETED appears, press asterisk (*).

4. To leave menu mode and return to normal operation, press REGISTER (softkey 4).

The use of one-touch buttons for dialing is described in Chapter 2.

SETTING THE CALENDAR/CLOCK

The normal SRS-2100 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 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 SERVICE, then REGISTER (softkey 4), 2, ENTER (softkey 1). This screen appears:

```
ENTER CALENDAR/CLOCK
. . . . . .
. . . .
8:06PM    SUN    APR 30
ENTER     NEXT     CLEAR
REGISTER
```

2. Press ENTER. The first input screen appears:

```
ENTER CALENDAR/CLOCK
INPUT HOUR          ->
 8:06PM    '95   APR 30
ENTER     NEXT     CLEAR
REGISTER
```

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.

```
ENTER CALENDAR/CLOCK
INPUT MINUTE      ->
12:06PM   '95   APR 30
ENTER     NEXT    CLEAR
REGISTER
```

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.

```
ENTER CALENDAR/CLOCK
INPUT 0:AM 1:PM   ->
12:55PM   '95   APR 30
ENTER     NEXT    CLEAR
REGISTER
```

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.

```
ENTER CALENDAR/CLOCK
INPUT YEAR        ->
12:55PM   '95   APR 30
ENTER     NEXT    CLEAR
REGISTER
```

6. To accept the year displayed, '95, 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.

```
ENTER CALENDAR/CLOCK
INPUT MONTH       ->
12:55PM   '95   APR 30
ENTER     NEXT    CLEAR
REGISTER
```

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.

```
ENTER CALENDAR/CLOCK
INPUT DAY         ->
12:55PM   '95   MAY 30
ENTER     NEXT    CLEAR
REGISTER
```

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     TUESDAY     MAY 1
ENTER       NEXT        CLEAR
REGISTER
```

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 REGISTER (softkey 4) to return to the normal display.

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

REINITIALIZING THE PHONE

This process 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.

To reinitialize your phone, complete the following steps:

1. Press SERVICE, then REGISTER (softkey 4), 3, ENTER (softkey 1). This screen appears:

```
PRIVATE DATA CLEAR
(1:YES 2:NO) ->
ARE YOU SURE?
ENTER      NEXT      CLEAR
REGISTER
```

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
. . . . . .
. . . .
ENTER      NEXT      CLEAR
REGISTER
```

   or

   c. To retain all data and display the main menu, press *. This screen appears:

```
SELECT ITEM                (1-12)
1: ONE-TOUCH      2: CALENDAR
3: INITIAL          4: RINGER PATTERN
ENTER      NEXT      CLEAR
REGISTER
```

   or

   d. To retain all data and return to the normal display, press REGISTER (softkey 4).

UNANSWERED CALL LOGGING (UNA-LIST)

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 six 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 REGISTER (softkey 4) to return to the menus and start over.

Enabling the UNA-LIST Feature

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

1. Press SERVICE, then REGISTER (softkey 4), 4, ENTER (softkey 1).

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

```
UNA SERVICE MODE
 NON SUPPORTED
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

   To leave it as is, press REGISTER again.

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

```
SELECT ITEM                (1-3)
1: ALL MODE  2: SELECT MODE
3: NO SUPPORT MODE
ENTER     NEXT     CLEAR
REGISTER
```

3. Press the number shown beside the mode you want to select, then press ENTER. The following sections describe each mode.

UNA-LIST on All Call Appearances

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

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

```
SUPPORTED (ALL)
 COMPLETED
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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

```
SELECT ITEM                (1-12)
1: ONE-TOUCH    2: CALENDAR/CLOCK
3: INITIAL      4: UNA-LIST SERVICE
MODE
ENTER     NEXT     CLEAR
REGISTER
```

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

UNA-LIST on Selected Call Appearances

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

1. Press REGISTER, then ENTER (two times).

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

```
UNA-LIST SERVICE MODE
SUPPORTED (SELECT)
SELECT ASSIGN KEY
ENTER      NEXT      CLEAR
REGISTER
```

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.

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

```
UNA-LIST SERVICE MODE
SUPPORTED (SELECT)
SELECT ASSIGN KEY
ENTER      NEXT      CLEAR
REGISTER
```

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

```
SELECT ITEM                (1-12)
1: ONE-TOUCH    2: CALENDAR/CLOCK
3: INITIAL      4: UNA-LIST SERVICE
MODE
ENTER      NEXT      CLEAR
REGISTER
```

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

Disabling the UNA-LIST Feature

To disable unanswered call logging, follow these steps:

1. Press SERVICE, then REGISTER (softkey 4), 4, ENTER (softkey 1).

If the following screen appears, the feature is enabled:

```
UNA-LIST SERVICE MODE
 SUPPORTED  (ALL)
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

To leave it as is, press REGISTER again.

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

```
SELECT ITEM                (1-3)
1: ALL                2: SELECT
3: NO SUPPORT
ENTER     NEXT     CLEAR
REGISTER
```

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

```
UNA-LIST SERVICE MODE
NON SUPPORTED
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

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

```
SELECT ITEM                (1-12)
1: ONE-TOUCH    2: CALENDAR/CLOCK
3: INITIAL      4: UNA-LIST SERVICE
MODE
ENTER    NEXT    CLEAR
REGISTER
```

4. You can then select a different menu function, or press REGISTER (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 by handset only; hang-up by handset or by pressing the DROP key.

Operating the Set with a Headset

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

1. Press SERVICE, then REGISTER (softkey 4), 6, ENTER (softkey 1). This screen appears:

```
HAND-SET/HEAD-SET SERVICE MODE
CURRENT MODE IS HAND-SET
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

2. Press ENTER, and this screen appears:

```
SELECT ITEM                (1-2)
1:HAND-SET MODE   2:HEAD-SET MODE
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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

4. Press ENTER. This screen appears:

```
HAND-SET/HEAD-SET SERVICE MODE
CURRENT MODE IS HEAD-SET
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

You can now operate the SRS-2100 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/HEAD-SET SERVICE MODE
CURRENT MODE IS HAND-SET
COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

The MIC-OFF button (if active) controls the microphone in the handset so that you can have private conversations with others in the room and the connected party cannot hear. Depress the MIC-OFF button to resume the telephone conversation.

When the display shows the selection you prefer, press REGISTER (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 SERVICE, then REGISTER (softkey 4), 5, ENTER (softkey 1). This screen appears:

```
HANDS-FREE SERVICE MODE
 NON SUPPORTED
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

2. Press ENTER, and this screen appears:

```
SELECT ITEM          (1-2)
1:SUPPORT MODE  2:NO SUPPORT MODE
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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

4. Press ENTER. This screen appears:

```
HANDS-FREE SERVICE MODE
```

```
SUPPORTED
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

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:

```
HANDS-FREE SERVICE MODE
NON SUPPORTED
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

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

ASSIGNING A LEASED NETWORK ACCESS CODE DELIMITER

Before you can dial a leased network number, or program a one-touch button to dial such a number, you must assign one of your multifunction button as a leased network access code delimiter key.

The procedure to dial a leased network number is the last procedure in the Placing and Receiving Calls section of Chapter 2.

The section Programming a Button for One-touch Dialing tells you how to program a one-touch button for a leased network number.

Assigning a Delimiter Button for Leased Network Access Codes

To assign one of the multifunction buttons as the delimiter key for entering leased network access codes, follow these steps:

1. Press REGISTER. The menu mode option screen appears:

ENTER	NEXT	CLEAR	REGISTER

```
SELECT MENU ITEM   (1-12)
1:ONE-TOUCH        2:CALENDAR/CLOCK
3:INITIAL          4:UNA-LIST SERVICE
MODE
```

2. Dial 10 and press ENTER.

```
USER CODE DELIMITER KEY
   SELECT ASSIGN KEY =
. . . . . .
. . . .
 ENTER   NEXT   CLEAR   REGISTER
```

3. Press the multifunction button you have chosen to be the delimiter key and then press ENTER.

The indicator for the button you have chosen turns green and its number appears on the display. Any one-touch buttons you have assigned turn red.

If you have previously assigned a button as the delimiter key, its indicator turns green when you complete step 2. You have two choices at this point:

- If you press a different button and press ENTER, the indicator of the previously assigned button goes off and the indicator of the new button turns green. The number of the new button appears on the display.

or

- If you press the previously assigned delimiter button and press ENTER, you cancel the button as the delimiter key. Its indicator goes out.

After you assign (or cancel) a button, the screen looks like this:

```
USER CODE DELIMITER KEY
  SELECT ASSIGN KEY = (21)
     COMPLETED
  ENTER    NEXT    CLEAR    REGISTER
```

4. To complete the procedure, press REGISTER (softkey 4). The standard display screen reappears.

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.

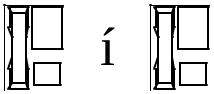
The Call Announce Intercom is distinct from the network-based intercom feature. Call Announce Intercom activates automatically.

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.

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

Call Screeners Call Recipient



Directory Numbers	Call Announce Intercom setup:
919-926-3110	Activating Directory
919-926-3111	Number = 919*926*3112
919-926-3112*	Intercom mode = 1-way or 2-way

*Designated for intercom

Figure 3-1 Call Announce Intercom Application

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).

The next sections describe 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
 SUPPORTED (ALL, SELECT,
NONSUPPORTED)
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

2. Press ENTER again.

The Call Announce Intercom button selection screen appears:

```
SELECT ITEM              (1-3)
1: ALL MODE  2: SELECT MODE
3: NO SUPPORT MODE
ENTER     NEXT     CLEAR
REGISTER
```

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

```
INTERCOM FEATURE
SUPPORTED (SELECT)
 SELECT ASSIGN KEY
ENTER     NEXT     CLEAR
REGISTER
```

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:

```
INTERCOM FEATURE
SUPPORTED  (SELECT/ALL)
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

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 the complete number, exactly as it appears on the display when that person calls you.

To do this, use the "*" key for all hyphens and spaces. For example: if 919-926-3112 is displayed on the display, you must enter 919*926*3112 to auto answer a call from this number.

Entering the full number negates the possibility that an outside call with the same last four digits in the calling number (for example, 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 cards to represent the dashes (-) or spaces if either 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 3112 and 3113 to activate the intercom. Remember, however, that all other Directory Numbers from 919*926*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:

```
INTERCOM FEATURE
SUPPORTED (SELECT/ALL)
 COMPLETED
ENTER     NEXT     CLEAR
REGISTER
```

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:

```
INTERCOM FEATURE (1)
TWO WAY INTERCOM SUPPORTED
919*926*3112
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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

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

```
INTERCOM FEATURE - SELECT ITEM (1-
3)
1:ONE WAY INTERCOM 2:TWO WAY
INTERCOM
3: TURN OFF INTERCOM FEATURE
ENTER     NEXT     CLEAR
REGISTER
```

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 AUTHORIZED TELEPHONE
NUMBER
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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 (plus 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
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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

```
INTERCOM FEATURE  (2)
NONSUPPORTED
. . . . . .
. . . .
ENTER     NEXT     CLEAR
REGISTER
```

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-2100 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, but it is the simplest and fastest.

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-2100 immediately answers the call, sounds an alert tone, 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.

ENTERING A SERVICE PROFILE IDENTIFIER

You need to perform this procedure only if you are connected to a multipoint configuration. Usually, though, the SPID is entered at the time of installation and no action is required of you. If you have questions, ask your System Administrator.

Warning: Once the SPID number is entered, don't change it unless your system administrator tells you to. Digital sets in a multipoint configuration won't work without the correct SPID number. If the SPID number is wrong, you'll hear a broken tone ("stutter dial tone") before the normal dial tone. Enter the correct SPID number and you'll get the normal dial tone.

If you need to enter a service profile identifier, follow these steps:

1. Press REGISTER (softkey 4), 8, ENTER (softkey 1). The message ENTER SPID appears, with the current SPID number (if any) shown below it:

```
ENTER SPID
ID=0000000000
. . . . . .
. . . .
  ENTER   NEXT   CLEAR   REGISTER
```

2. Dial your SPID number and press ENTER. The message SPID ASSIGNMENT END appears:

```
SPID ASSIGNMENT END
ID=0135908640
. . . . . .
. . . .
  ENTER   NEXT   CLEAR   REGISTER
```

3. Press REGISTER (softkey 4) to return to normal operations. The standard display screen appears.

USING Q.931 MESSAGE LOGGING

Q.931 message logging is an SRS-2100 feature that lets you store and retrieve call control messages sent and received by your digital set. These messages can help the System Administrator or service technician verify the operation of the digital set and phone lines.

The average user would use the message logging feature only to collect messages for a service person in case of phone problems.

Message logging works in two modes:

- The Logging mode, which stores messages in a history file without displaying them.
- The History mode, which displays messages stored in the history file. The history file can hold up to 24 messages at a time.

This section covers the procedures to:

- Start and stop message logging
- Review logged messages

Note: When you stop message logging, all messages stored in the history file are saved and can be reviewed at a later time.

Appendix D provides the System Administrator or service technician with information useful in decoding messages. (Because of the limited space on your display, messages appear as a set of codes and abbreviations.)

Starting or Stopping Message Logging

You go through the same sequence of menus to start or stop message logging.

1. Press SERVICE, then REGISTER (softkey 4), 9, ENTER (softkey 1).

The following screen appears:

```
MESSAGE LOGGING MODE     SELECT (1-
3)
.1:LOGGING START     2:LOGGING STOP
3:HISTORY MODE
  ENTER    NEXT    CLEAR    REGISTER
```

2. Make your selection:

To start message logging, dial 1 and press ENTER.

The message MESSAGE LOGGING START SELECTED appears.

To stop message logging, dial 2 and press ENTER.

The message MESSAGE LOGGING STOP SELECTED appears.

3. To return to normal operations, press REGISTER.

The standard display screen reappears.

Reviewing Logged Messages

To review messages in History mode, complete the following steps:

1. Press SERVICE, then REGISTER (softkey 4), 9, ENTER (softkey 1). This screen appears:

```
MESSAGE LOGGING MODE  SELECT (1-3)
1:LOGGING START      2:LOGGING STOP
3:HISTORY MODE
ENTER   NEXT   CLEAR   REGISTER
```

2. To select the History mode, press 3, ENTER (softkey 1).

The messages appear on a screen like this:

```
1T>N:  SETUP       CR=18
1N>T:  CALL-PROC   CR=98
1N>T:  PROGRESS    CR=98
ENTER   NEXT   CLEAR   REGISTER
```

The history file holds up to 24 messages. Scroll through messages by pressing ROLL-UP (softkey 2) or ROLL-DOWN (softkey 3).

3. To display the full message text in hexadecimal:

- Press ROLL-UP or ROLL-DOWN to select a message.
- Press HEX.

The message appears on a screen like this:

```
08   01   CR:01   SETUP:05
KP:  2C   07   35
AI:  39   31   39
NORMAL   ROLL-UP   ROLL-DOWN  EXIT
```

The hexadecimal message may take up more than one screen. Scroll through the rest of the message by pressing ROLL-UP or ROLL-DOWN. To return to a normal display (non-hexadecimal), press NORMAL.

4. To quit the History mode, press EXIT.

The menu of message logging options appears again.

To stop message logging and save all messages in the history file before returning to normal operations, dial 2 and press ENTER. The screen displays the message MESSAGE LOGGING STOP.

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

The standard display screen reappears.

CORRECTING MISTAKES

This section gives an example of correcting errors while setting a local feature of the SRS-2100.

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 (*) to return to the menu and then enter the correct value.

Example: Correcting calendar/clock errors

Suppose, just before entering the number for the day, you discovered a couple of errors; you had set AM instead of PM and APRIL instead of MAY. Here's what you do:

1. The screen shows the following:

```
INPUT DAY          ->
12:55AM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

2. Press asterisk (*). The prior screen appears:

```
INPUT MONTH        ->
12:55AM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

3. Press * again. The prior screen appears:

```
INPUT YEAR         ->
12:55AM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

4. Press * again. The prior screen appears:

```
INPUT  0:AM   1:PM    ->
12:55AM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

5. Press 1, ENTER to correct the time of day. This screen appears:

```
INPUT YEAR         ->
12:55PM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

6. Press ENTER, accepting '95 as the year. This screen appears:

```
INPUT MONTH    ->
12:55PM   '95   APRIL 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  ENTER    NEXT    CLEAR    REGISTER
```

7. Press 5, ENTER, changing month to May. This screen appears:

```
INPUT DAY          ->
12:55PM   '95   MAY 30
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
. . . .
  ENTER    NEXT    CLEAR    REGISTER
```

You have now returned to the point where you realized your mistakes. Say you want to set the 4th as the date.

8. Press 4, ENTER, changing the date to the 4th. This screen appears:

```
COMPLETED
12:55PM   '95   MAY 4
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
. . . .
  ENTER    NEXT    CLEAR    REGISTER
```

9. Press REGISTER (softkey 4) to return to the normal display, which shows the corrected entries:

```
. . . . . . . . . . . . . . . . . . . . . . . . .
12:55PM      SAT     MAY 4
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
. . . .
  ENTER    NEXT    CLEAR    REGISTER
```

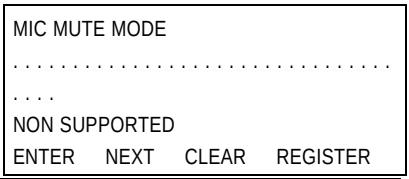
ACTIVATING AND DEACTIVATING THE MIC-OFF BUTTON

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.

If you deactivate MIC-OFF, assign the upper-right button as a one-touch button or a delimiter 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 or delimiter assignment before you can reactivate MIC-OFF.

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

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



2. Press ENTER again and this menu appears:

```
SELECT ITEM   (1-2)
1:SUPPORT     2:NO SUPPORT
. . . . . .
. . . .
  ENTER    NEXT    CLEAR    REGISTER
```

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 or delimiter button

If you wish to reactivate MIC-OFF, you must first cancel the one-touch or delimiter assignment.

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

   To deactivate MIC-OFF, press 2, ENTER.

   The screen shows your choice:

```
MIC MUTE MODE
SUPPORTED
   COMPLETED
ENTER    NEXT    CLEAR    REGISTER
```

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

PERSONAL DIRECTORY

Your SRS-2100 has a Personal Directory feature that allows you to store names and associated telephone numbers in the set.

The Personal Directory can hold up to 32 items. Names may be up to 15 characters long, and telephone numbers may be up to 30 characters long.

Setting Up the Personal Directory

1. To access the directory, press DIR-LIST (softkey 4). This screen appears:

```
01= . . . . . .
. . . . .
02= . . . . . .
. . . . .
03= . . . . . .
. . . . .
ENTER     ROLL-UP     ROLL-DOWN
EXIT
```

2. Press ENTER (softkey 1) to display this screen. Enter the telephone number.

```
ENTER DIRECTORY NUMBER
01 =
. . . . . .
. . . .
ENTER     NUMERIC     CLEAR     EXIT
```

3. Press ENTER (softkey 1) to display the next screen. Enter the name according to these instructions.

Letters

Press the keypad numbers corresponding to the letters in the name.

The first press of a keypad digit displays the first letter from the group of letters represented by that key, such as 2 for ABC, 3 for DEF, etc. The first letter of the group appears on the display. The second press of that key displays the second letter, such as B or E. The third press shows the third letter.

The two exceptions are the letters Q and Z. Although they are not shown on the key labels, the SRS-2100 displays them in their proper alphabetic order. To use the letter Q, press 77, to use Z, press 9999. (To get R and S, press 777 and 7777 respectively.)

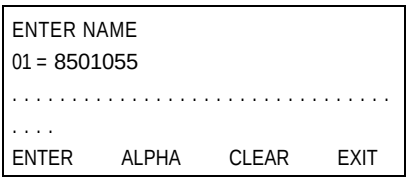
Since alphabetic entries can require multiple key-presses, you must press the # key when the display shows the letter you want. Alpha entries are not recorded until you press the # key. After pressing the # key, the next press applies to the name's next display position.

For each space you want, press * followed by #. (You must be in the ALPHA mode to enter spaces.)

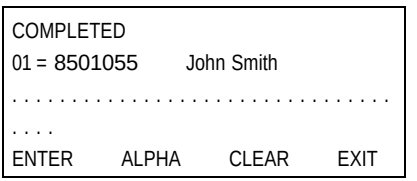
Numbers

For numbers, NUMERIC must show in line 4 as the label for the second softkey. If ALPHA shows instead, press the second softkey and it turns into NUMERIC. then press the numbers you want in your name. The # key is not needed for numeric entry. Numeric entries are recorded immediately, and the next key press applies to the number's next character position.

To insert pauses in the telephone number, press the HOLD key. A "," indicates the pause in the telephone number. For example, 99198503481,*4250.



4. Press ENTER (softkey 1) to display this screen:



5. Press EXIT (softkey 4) to return to the initial screen.

Refer to the Personal Directory Entry Table.

Using Network Data in the Personal Directory

When you receive an incoming call, and the "Caller ID" or other caller information is displayed, you may use this as an entry in your Personal Directory.

Note: If the directory is full, the message DIRECTORY FULL will be displayed.

1. While on the active call, press DIR-LIST (softkey 4). The following screen appears:

```
REGISTER DIRECTORY NUMBER & NAME?
(NN)
 919 850-1553
. . . . . .
. . . .
ENTER     ALPHA     CLEAR     EXIT
```

(NN) is the next available directory entry number. The number is the calling party information.

2. Press ENTER. The calling party information is included in your directory. You will notice a "?" next to the new entry as you scroll through the directory. This indicates that you may not be able to dial the number exactly as it is entered. For example, in some systems the area code and prefix are appended to the calling party number (919 XXX-XXXX) even though the dialing plan is a 4 digit or extension dialing plan.

   In this case, the area code and the prefix must be deleted from the entry to successfully place the call. See Editing the Personal Directory for instructions.

Placing a Call Using the Personal Directory

1. Press DIR-LIST (softkey 4).

2. Scroll to the name of the person you want to call, or enter the Directory Address (01, 02, etc.) for that person.

3. Press ENTER.

4. Lift the handset or press the speaker key to place your call.

Editing the Personal Directory

To edit items in the directory, access the item that needs to be changed.

1. Press DIR-LIST (softkey 4). This screen appears:

```
>01  9198501055          John Smith
 02  9198501056          FNS Raleigh
 03  9198501057          Maintenance
ENTER     ROLL-UP     ROLL-DOWN
EXIT
```

The ">" symbol indicates the selected items.

2. Use the ROLL-UP and ROLL-DOWN buttons to locate the desired item, or input the item number (for example - 01):

```
>01  9198501055          John Smith
 02  9198501056          FNS Raleigh
 03  9198501057          Maintenance
ENTER     ROLL-UP     ROLL-DOWN
EXIT
```

3. Press ENTER to access the line to be changed.

4. Press CLEAR and ENTER to remove the existing information. Enter the new information.

The following table shows the correspondences.

Notes

Key Label	First	Second	Third	Fourth
ABC 2	A	B	C	A
DEF 3	D	E	F	D
GHI 4	G	H	I	G
JKL 5	J	K	L	J
MNO 6	M	N	O	M
PRS 7	P	Q	R	S
TUV 8	T	U	V	T
WXY 9	W	X	Y	Z

Personal Directory Entry Table

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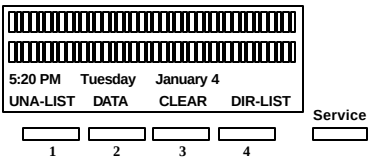
CHAPTER 4

DATA OPERATION

The SRS-2100 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.



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data terminal.)

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

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
- Using the X.28 commands at your terminal

Following these procedures is a section on placing a call to a leased network number.

There are three LEDs below the multifunction buttons of the SRS-2100. 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.

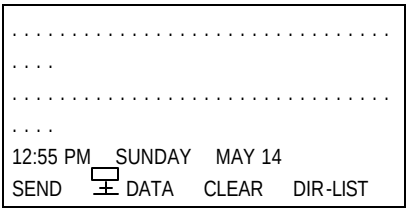
Using the DATA Key

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 SERVICE.

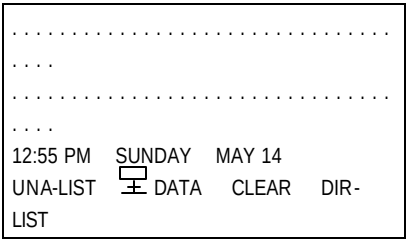
   Next to the word DATA on the display, a blinking terminal symbol appears, and to its left the word SEND appears for about six seconds.



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; mixing upper and lower-case letters, as in Atd or aTD, will not work.) A blinking terminal symbol appears on the phone's display next to the word DATA.

2. 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.

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

4. 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.

Using X.28 Commands

The procedure for making the connection with X.28 is similar to the above but requires no explicit command:

1. Enter the number to be dialed, and then press <CR>. A blinking terminal symbol appears on the phone's display next to the word DATA.

When the connection is made, the display returns to normal, except that a steady terminal symbol continues to be shown after the time and date on line 3.

2. To disconnect, hold down CTRL as you press P. Wait for the * prompt to appear, and then enter the command CLR and press <CR>. The call disconnects, the words CLR CONF appear on your screen, and the steady terminal symbol disappears.

For instructions on viewing parameters or using off-line commands, or for additional information on other communication parameters and considerations, please refer to the *ISDN Data User's Guide*.

Note: The AT and X.28 escape sequences shown above (+++ and CTRL-P) are the default values. If these have been changed on your terminal, see the *ISDN Data User's Guide* for more information.

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.

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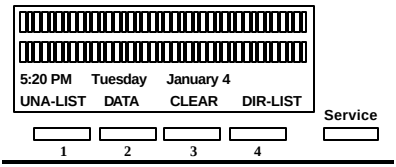
APPENDIX A

INSTALLATION

This appendix is intended mainly for System Administrators or service personnel with responsibility for installing the SRS-2100. End users can also install the digital set if provided with the necessary hardware and information from their System Administrator.

Installation of the SRS-2100 involves two steps:

- Connecting the set to the network
- Entering Service Profile Identifier (SPID).
- Programming and labeling the set



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data terminal.)

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

INSTALLING THE SRS-2100

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-2100 and also indicates the position of the power switch on the SRS-2100.

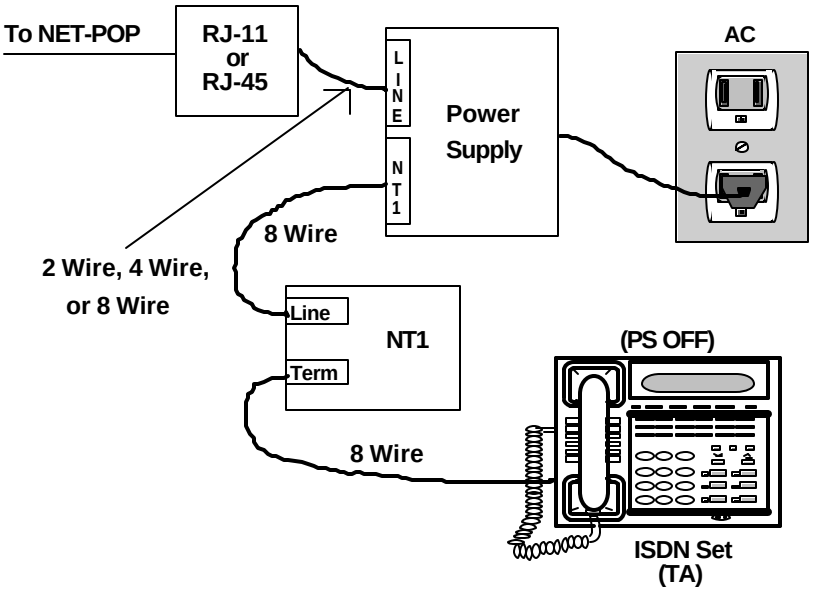


Figure B-1: Power Connections

Figure B-2 illustrates the connections when a power supply is needed for the NT1 and another is needed for the SRS-2100 and also indicates the position of the power switch on the SRS-2100.

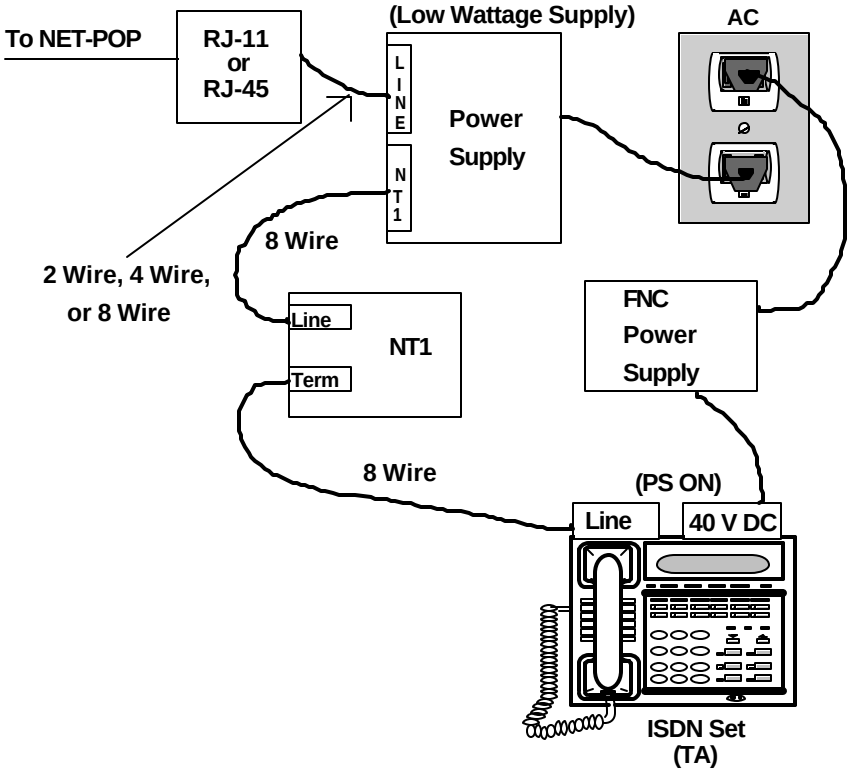


Figure B-2: Power Connections

CONNECTING TO THE NETWORK

When you receive your SRS-2100, 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 THE SPID

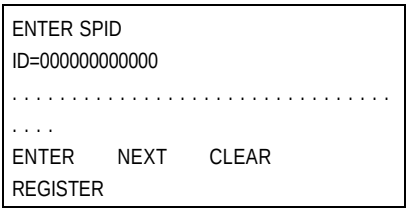
The Service Profile Identifier identifies your set to the network. You will need to enter a SPID if you are on a multipoint configuration.

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 identifier, follow these steps:

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

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



2. Dial your voice SPID number and press ENTER.

This screen appears:

```
SPID ASSIGNMENT END
ID=XXXXXXXXXX
. . . . . .
. . . .
ENTER    NEXT    CLEAR
REGISTER
```

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

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. Lift the plastic cover from the right side (the side opposite the handset).

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.

To reinsert the cover, fit the tabs into the slots at the left side of the panel and work the cover down over the buttons.

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 two laser printer compatible paper template with the SRS-2100 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 separate the two 2100 templates or remove the margin material before 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.

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.

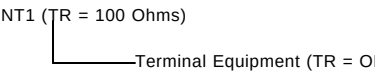
Follow the NT1 manufacturer instructions to set the Termination to ON or OFF as needed.

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).

NT1 (TR = 50 Ohms)

- Terminal Equipment (TR = OFF)
- Terminal Equipment (TR = OFF)

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).

NT1 (TR = OFF)

- Terminal Equipment (TR = ON)
- Terminal Equipment (TR = ON)

Multiple Unit Installations – Bridging at the NT1

The overall maximum length of the 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).

NT1 (TR = ON 100 Ohms)

- Terminal Equipment (TR = OFF)
- Terminal Equipment (TR = OFF)
- Terminal Equipment (TR = ON)

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APPENDIX B

LINE PARAMETERS

When your line was installed, choices were made on three important switch parameters that affect your call handling and the LEDs associated with your lines.

Ringing Preference

The first choice, called ringing preference, affects what happens when you have at least one idle Call Appearance and an incoming call flashing on another CA. When you pick up the handset or press SPEAKER, the phone can automatically connect you with an idle CA, giving dial tone, or with the incoming call. Your phone will consistently pick up an idle CA of the incoming call based on the configuration choice recorded with your telephone provider. When preference is "yes", the incoming call is chosen.

Ringing Preference Choices

If the set is programmed at the switch to pick the first ringing Call Appearance, picking up the handset connects you immediately with the incoming call. This preference setting is called RING preference.

If the set is programmed to pick the first idle Call Appearance, picking up the handset gives you a dial tone. In this case, you must press the flashing green Call Appearance button and pick up the handset or press SPEAKER to answer an incoming call. This setting is called IDLE preference.

Menu Mode Effects

During Menu Mode, you can answer any incoming call by pressing the appropriate Call Appearance button and picking up the handset. If your phone was installed with "ringing preference" as RING, then simply picking up the handset automatically connects you to the first incoming call.

If the ringing preference is IDLE, then picking up the handset or pressing SPEAKER connects you to an idle line (if there is one). You can then make an outgoing call or press a green-flashing Call Appearance button to pick up an incoming call.

(If your ringing preference was set to IDLE and there are no lines available, the SRS-2100 does not connect to a line until you press a Call Appearance button.)

AUTOHOLD

The second choice, called autohold, affects what happens when you are on an active call on one CA and then press another CA. The active call you were on can be dropped or held automatically. If it is dropped, the LED goes dark. If it is held, the LED flashes red. Your phone will consistently drop or hold your active call when you press another CA based on the configuration choice recorded with your telephone provider.

ONETOUCH

The third choice, called onetouch, affects whether handsfree operation is automatically selected when you press an idle CA, causing you to hear a dial tone through the speaker. Your phone will consistently remain in handset mode or automatically enter handsfree operation based on the configuration choice recorded with your telephone service provider.

Guide Assumptions

To simplify presentations in this guide, the text assumes that handsfree operation is automatic when you press an idle CA, that is onetouch is "yes". If your installation is different, then to get dial tone after pressing an idle CA, you must either press SPEAKER for handsfree operation or lift the handset.

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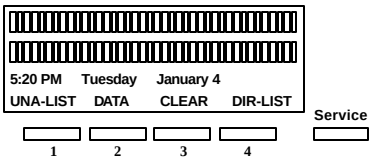
APPENDIX C

TESTING

The SRS-2100 has a self-test mode that performs the following tests:

- LED test
- Key test
- Tone test
- LCD test
- Memory tests
- Program and Loop Switch test



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data model.)

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

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 EXECUTING (LED)
. . . . . .
. . . . . .
. . . . . .
```

When the LED test is complete, this screen appears:

```
SELF TEST EXECUTING (KEY TEST)
. . . . . .
. . . . . .
SOFT1    SOFT2    SOFT3    SOFT4
```

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-2100 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	MULTIASSIGN KEY nn	nn: 1 to 18 (key no.)
Fixed function buttons	FUNCTION KEY 1 FUNCTION KEY 2 FUNCTION KEY 3 FUNCTION KEY 4 FUNCTION KEY 5 FUNCTION KEY 6	DROP TRANSFER HOLD CONFERENCE REDIAL 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

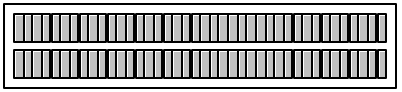
When you press 1 on the DTMF keypad, the speaker sounds a Ringer Tone. If you pick up the handset, the ringing stops and a Busy tone is sent to the handset.

The LCD shows the following display:

```
SELF TEST EXECUTING (TONE)
. . . . . .
. . . .
. . . . . .
. . . .
SOFT1     SOFT2     SOFT3     SOFT4
```

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 EXECUTING (MEMORY/LINE
TEST)
. . . . . .
. . . .
```

```
S/M 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
. . . . . .
. . . . . .
```

Program and Loop Switch Test

If your SRS-2100 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:

```
SELF TEST EXECUTING (PROGRAM SW/LOOP SW)
PROG RAM:  OFF LOOP:NOR
. . . . . .
. . . . . .
```

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.

Notes

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).

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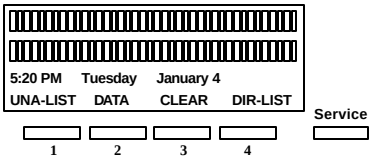
APPENDIX D

INTERPRETING Q.931 MESSAGE LOGGING CODES

With Q.931 message logging, you can view messages in History mode in two different formats:

- Normal format
- Hexadecimal format

This appendix describes these two formats in detail, showing what messages look like in each. At the back of this appendix you'll find three tables explaining the codes and abbreviations used in the messages.



Standard Softkey Layout

(The DATA softkey label appears only if you have a voice/data model.)

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

NORMAL FORMAT IN HISTORY MODE

The normal format of the History mode shows abbreviated information. An abbreviated message and call status code are displayed for transmission and reception messages. The information element codes, selected Directory Number value, and call status code are not shown.

The screens below are examples of messages in the normal format of History mode. Note that line 4 of the displays shows the names of softkey functions specific to History mode. Use the softkey ROLL-DOWN to see additional messages (move from screen 1 to screen 2) and ROLL-UP to backtrack to previous messages (move from screen 2 to screen 1). The softkey HEX switches the display to hexadecimal format, and EXIT leaves History mode.

```
>1N>T:SETUP      CR=01
 1T>N:ALERTING     CR:01
 1T>N:CONNECT      CR:01
HEX      ROLL-UP      ROLL-DOWN
EXIT
```

Definitions of the different fields shown in the normal format of the History mode follow:

nT>N: Transmission message identifier for terminal-to-network messages. This identifier is followed by the abbreviated message and a list of up to six related information element codes. Table D-1 explains the different abbreviated messages. Table D-2 lists and defines the information element codes.

nN>T: Reception message identifier for network-to-terminal messages. This identifier is followed by the abbreviated message and a list of up to six related information element codes. Table D-1 explains the different abbreviated messages. Table D-2 lists and defines the information element codes.

CR: Call reference number

HEXADECIMAL FORMAT IN HISTORY MODE

You can use the hexadecimal format of History mode to see more detailed message information than is displayed in the normal format.

The selected Directory Number value, call status code, and information element codes are displayed, as well as the abbreviated message and call reference number.

In the hexadecimal format, you can view only one message at a time. To see another message, you must press the NORMAL softkey to return to normal format, use ROLL-UP and ROLL-DOWN to display another message on the screen, and then press the HEX softkey to return to hexadecimal format.

The screens that follow are an example of a message in the hexadecimal format of History mode. Line 2 of the displays shows the names of softkey functions specific to History mode. Use the softkeys ROLL-UP and ROLL-DOWN to scroll through the lines of the message. The softkey NORMAL switches the display back to normal format, and EXIT leaves History mode.

```
08 01 CR:05 K-SETUP:FD BC:04 03 80 90
A2 NI:27 01 FC EID:3B 02 F0 80 CON:70
08 C1 38 35 30 39 33 31 38
NORMAL     ROLL-UP     ROLL-DOWN
EXIT
```

The following information is shown:

- Transmission or reception message identifier. This identifier is followed by the abbreviated message and a list of up to six related information element codes. Table D-1 explains the different abbreviated messages. Table D-2 lists and defines the information element codes.

• Selected Directory Number value • Call reference number • Call status code. Table D-3 explains the valid call status codes.	• Channel identifier (not shown in this example). The channel identifier, if displayed, shows B1, B2, or D, depending on the channel used.

Notes

CODES AND ABBREVIATIONS

The following three tables explain the abbreviated messages, information element codes, and call status codes.

Table D-1 Message Abbreviations

Abbreviated message	Full Message
ALERTING	Alerting
ASSOC	Associated
ASSOC-ACK	Associated Acknowledge
CALL-PROC	Call Proceeding
CONF	Conference
CONF-ACK	Conference Acknowledge
CONF-REJ	Conference Reject
CONNECT	Connect
CONN-ACK	Connect Acknowledge
DISC	Disconnect
DROP	Drop
DROP-ACK	Drop Acknowledge
DROP-REJ	Drop Reject
HOLD	Hold
HOLD-ACK	Hold Acknowledge
HOLD-REJ	Hold Reject
INFO	Information
MAN-INFO	Management Information
MIM	Management Information Messages
OVERLAP	Overlap Sending
PROGRESS	Progress
RECONNECT	Reconnect
RECONN-ACK	Reconnect Acknowledge
RECONN-REJ	Reconnect Reject
REDIRECT	Redirect

Table D-1 Message Abbreviations (continued)

Abbreviated message	Full Message
RELEASE	Release
REL-COM	Release Complete
RESTART	Restart
REST-ACK	Restart Acknowledge
SETUP	Setup
SETUP-ACK	Setup Acknowledge
STATUS	Status
STATUS-ENQ	Status Inquiry
TRANSFER	Transfer
TRANS-ACK	Transfer Acknowledge
TRANS-REJ	Transfer Reject
UNSPECIFIED	Unspecified Error

Table D-2 Information Element Codes

Information element code	Meaning
AC	Adjunct Control
AT	Associated Type
BC	Bearer Capability
CAU	Cause
CDN	Called Party Number
CGN	Calling Party Number
CID	Channel Identification
CR	Call Reference
DC	Display Control
DCA	Destination Call Appearance
DF	Display Field
EI	Endpoint Identifier
ERR	Element Error
FA	Feature Activation
FI	Feature Indication
KP	Keypad
KPC	Keypad Control
LS	Locking Shift
LLC	Low Layer Capability
MIE	Management
OCA	Origination Call Appearance
OCR	Other Call Reference
PI	Progress Indicator
RI	Restart Indicator
SCA	Selected Call Appearance
SIG	Signal
SWH	Switchhook
ST	Call State
TC	Terminal Capabilities
UC	User Code

Table D-3 Call Status Codes

Code	Status	Meaning
U00	NULL	Null State
U01	CALL INIT	Call Initiation
U02	OVERLAP	Overlap Sending
U03	OUT PROC	Outgoing Call Proceeding
U04	CALL DLVD	Call Delivered
U07	CALL RCVD	Call Received
U08	CONN REQ	Connection Request
U09	IN PROC	Incoming Call Proceeding
U10	ACTIVE	Active
U11	DISC REQ	Disconnect Request
U12	DISC IND	Disconnect Indication
U19	REL REQ	Release Request

Notes

APPENDIX E

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 F

ERROR MESSAGES

Various messages are displayed to describe connection or command status. Tables F-1 (circuit-switched) and F-2 (packet-switched) show connection status messages.

Table F-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
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
038	OUT OF ORDER	Network out of order
041		Temporary failure
042	NETWORK BUSY	Network congested

Table F-1 Connection Status Messages (continued)

Cause #	Message Displayed	Description
043		Access information discarded
050	FACILITY N/A	Requested facility not subscribed
051	SERVICE NG	Service request incomp atible
052		Outgoing calls barred
053	SERVICE NG	Service operation violated
054	CALLED BARRED	Incoming calls barred
057	BEARER TYPE NG	Bearer capacity not authorized
058		Bearer capability not currently available
063		Service or option not available
065	BEARER TYPE NG	Bearer service not implemented
066		Channel type not implemented
069	FACILITY N/A	Requested facility not implemented
081		Invalid call reference value
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 nonexistent or not implemented
098		Message not compatible with call state
100		Invalid information element contents
102	TIMER EXPIRE	Recovery or timer expired
111		Protocol error, unspecified
127		Interworking, unspecified

Table F-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.

Notes