Exhibit E

User's   Manual

SMILE COMMUNICATION INC.

FCC ID.:NL9SD2000

DIGITAL SATELLITE RECEIVER

Users' Manual

SD2000

Date: *August 5, 1997*

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Table of Contents

About this Manual

The purpose of this manual is to give you the information of accessing the SD2000(IRD). The manual is divided into the following parts:

- **Get ready to the SD2000(IRD)**

  This is an overview of the IRD's features and the remote control unit.

- **Basic Operation**

  This section explains how to select different channels and programs.

- **Major features**

  This section contains an overview of using the menu as a help guide on:
  - Using program access (parental) control.
  - Displaying decoder information
  - Customize your favorite channel lists and available channels.

- **Installation guide**

  This section contains all the information you require to install the receiver.
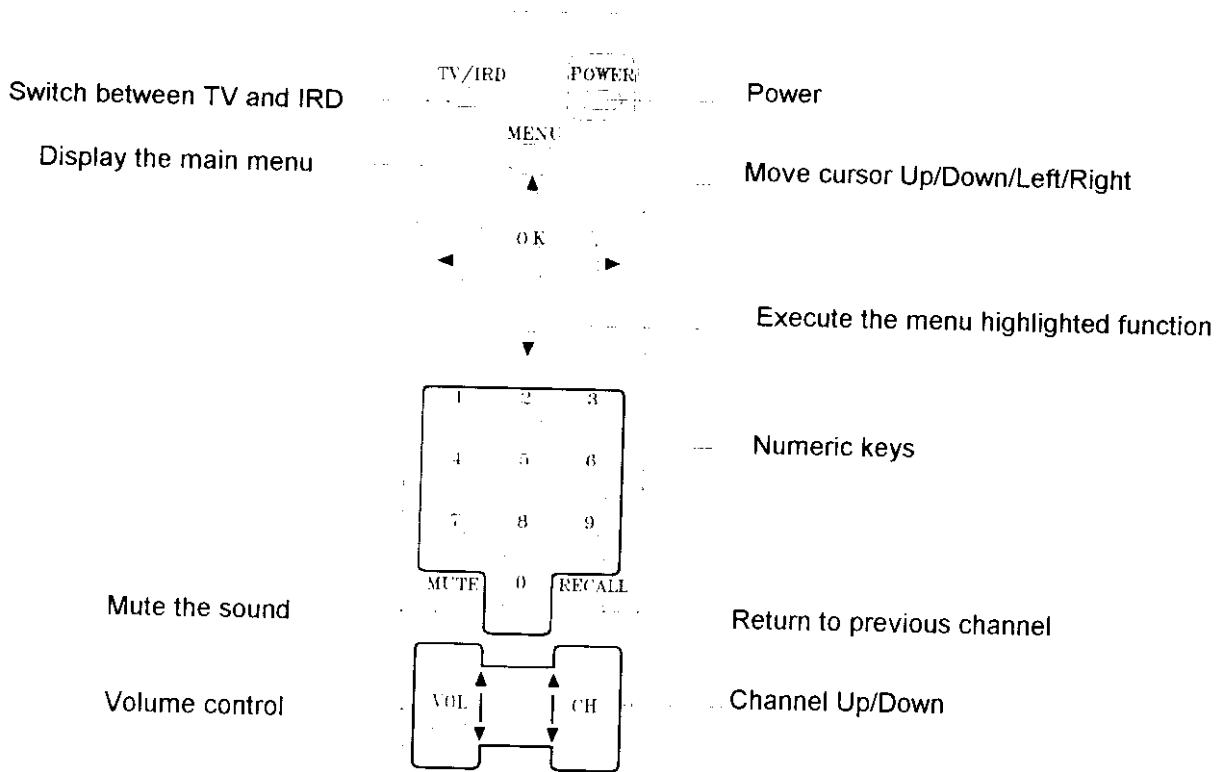
- **Troubleshooting**

  This section outlines some simple remedies which will help you solving some common problems.

	Users' Manual SD2000	
Date: January 22, 1998	All Rights Reserved	Page: 2

Get Ready to SD2000(IRD)

Remote Control Unit
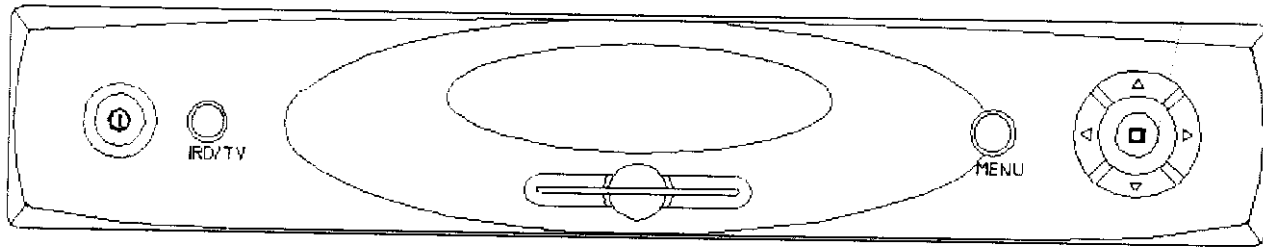
1. Insert two R6 (AA size) batteries.   Make sure they are correctly positioned.

2.   Using the Remote Control Unit

Switch between TV and IRD	TV/IRD POWER	Power
Display the main menu	MENU ▲	Move cursor Up/Down/Left/Right
	◄ O K ►	
	▼	Execute the menu highlighted function
	1 2 3 4 5 6 7 8 9	Numeric keys
Mute the sound	MUTE 0 RECALL	Return to previous channel
Volume control	VOL CH	Channel Up/Down

	Users' Manual	
	SD2000	
Date: January 22, 1998	All Rights Reserved	Page: 3

The SD2000(IRD) Font Panel

Execute the menu highlighted function

Power

Move cursor Up/Down/Left

SD2000(IRD) Back Panel

Dual Audio

Video

Channel Up/down

Channel 3/4 switch

Power

To LNB

Antenna in

AC power in

S terminal

To TV
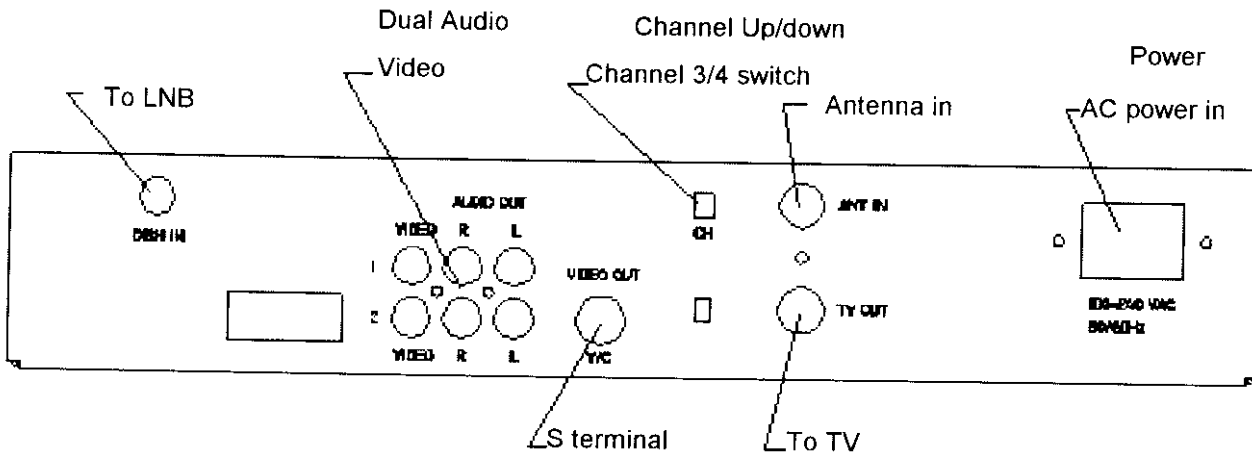
Basic Operation

This section explains how to select different channels and programs; it assumes that you have finished the installation of satellite dish antenna and connected the antenna cable to SD2000(IRD) and tuned it to the corrected carrier by referencing the installation guide.

Connecting the power supply

Connect the power core to the SD2000(IRD).

Selecting SD2000(IRD) Channel

Using channel ▲ or ▼ button on the remote control unit or on the front panel, you can step through the channels in turn. Just right after you change channel the channel number that you select will show on the top right corner of the screen for 3 seconds.

- To see the next channel on the channel list, press ▲.
- To see the preceding channel, press ▼.
- To select any channel, key in the channel number from the remote control unit.
- Press "**RECALL**" to return to previous channel you selected.

NOTE:

1. If you select one channel which is not defined by the channel list (to be explained later), an OSD message "**Channel not defined**" will be shown on the screen:

   Channel not defined

2. If the carrier signal quality of the selected channel is not good enough for SD2000(IRD) to process and the channel number is successfully installed before, SD2000(IRD) will show the message "**Signal not available**" on the screen:

   Signal not available

4. If the current program is not available (i.e., the program number of this carrier is not available), the SD2000(IRD) shows the message "**Program not available**" on the screen:

   Program not available
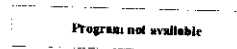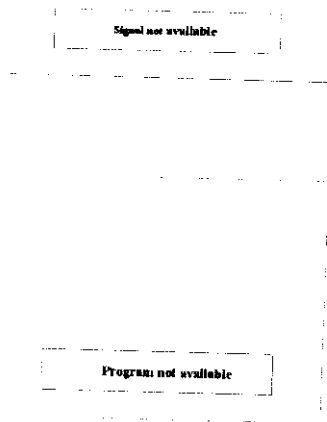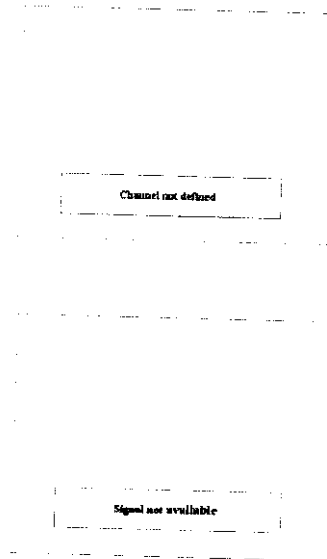
Adjusting the volume

1. Using volume ▲ or ▼ button on the remote control, you can adjust the volume.

Mute the audio sound

Using the "**Mute**" button on the remote control unit to turn off/on the audio sound. The 4-digit left corner will light ON in "**Mute**" status.

Switching between IRD and TV

If you connect TV from IRD's RF modulator (in the back panel) and view the IRD programs from your TV's channel 3 or 4, switching to the free-to-air channel can be retained by turning your IRD off or press TV/IRD button on the remote control unit, and use your TV channel control to select the free-to-air channels.

<u>NOTE</u>: Switching between IRD and your TV depends on the connecting methods of the IRD and TV set. Please refer the "Installation guide" for more information.

Using the Menu

1. IRD implements "Menu" function for you to access other features and functions. To access menu, press "**MENU**" button on the remote control unit. The menu can be canceled by press "**MENU**" button again. The main menu shows five options:

    ❶ **General Settings**
    The common settings for the Favorite Channel, Parental Control, Screen format, and setting of LO Frequency.

    ❷ **Carrier Settings**
    To setup the correct carriers that your service provider broadcasts to you.

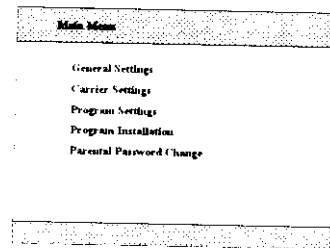   ❸ **Program Settings**
    This function enables you to select your favorite channels and set parental control on specific channels.

    ❹ **Program Installation**
    This feature provides the basic ways to install programs.

    ❺ **Parental Password Change**
   This function allows you to change the parental password

2. Move cursor to menu objects and the object will be highlighted and covered by up-arrow "▲" and under-arrow "▼". If the menu object can be editing i.e., can receive user inputs, it is highlighted and surrounded by 4-arrow (▲,▼,◀ ,and ▶).

3. Move cursor to the menu option you want and press "**OK**" button on the remote control unit.

	Users' Manual	
	SD2000	

# Major features

Creating your own favorite channel list

1. At main menu, move cursor to point and highlight the "**General Setting**" menu, and press "**OK**". At "**General setting**" menu, toggle the "**Favorite list**" to "**ON**", and go to "**Program Settings**" menu.

2. At "**Program Settings**" menu, move cursor to your favorite channel and press "**OK**" to toggle it on or off.
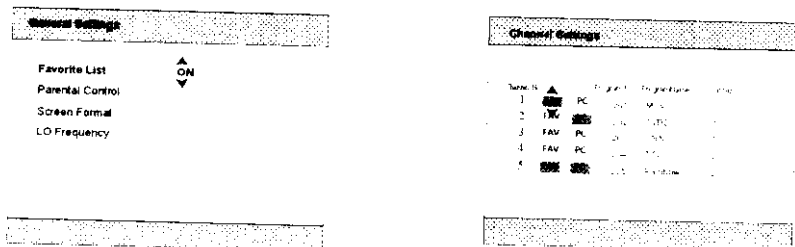

3. After you completed this settings, the un-highlighted favorite channel number will not be selected in channel up/down selection control.

Setting Parental Control channel

1. Press "**MENU**" to the main menu, and point to "**General Settings**". The Parental Control option must be "**ON**" in default. To Change this option to "**OFF**" you have to key in the correct password.
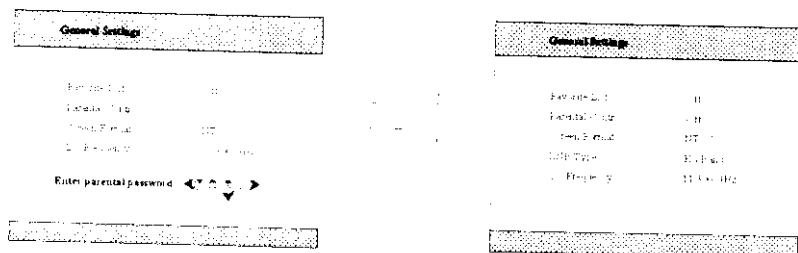

2. On the "**Program Settings**" menu, you can specify any channel number as the parental control channel. Simply move cursor to the "**PC**" field of the corresponding channel and press "**OK**", then key in the correct password to complete the function.

3. The Parental Control channels can only be viewed by first entering your four-digit password.

	Users' Manual SD2000	
Date: January 22, 1998	All Rights Reserved	Page: 7
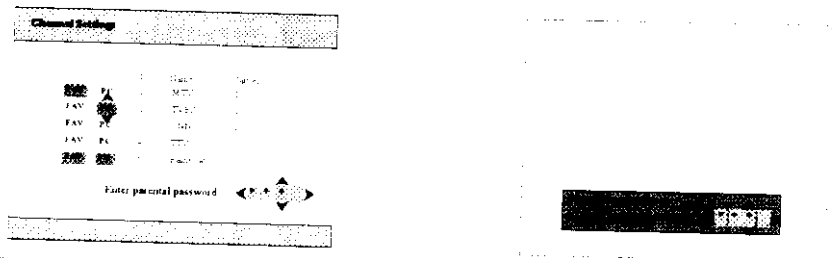
Change Parental Password

1. On main menu, select "**Parental Password Change**" menu and press "**OK**". IRD will ask you to enter the current password, new password, and re-enter new password to confirm the change.

Main Menu
General Settings
Carrier Settings
Program Settings
Program Installation
▲
Parental Password Change
▼

Parental Password Change
Enter current password   • • • •
Enter new password   • • • •
Re-enter new password   • • • •
<< Password changed >>
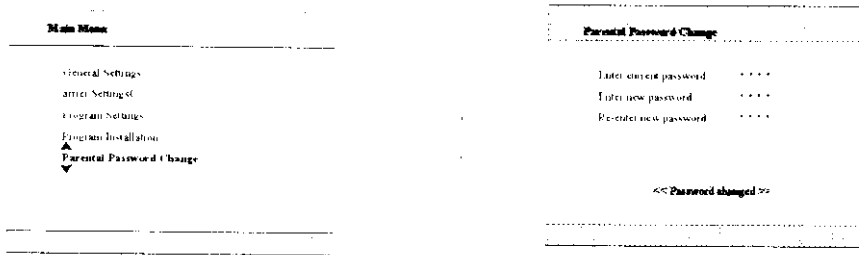
Installation Guide

IRD/TV Connection Methods

The following pages show the commonly used connect methods between your IRD and TV (or VCR) set. You may need to refer your TV and VCR owner's users' guide for the better performance.

Connection 1.
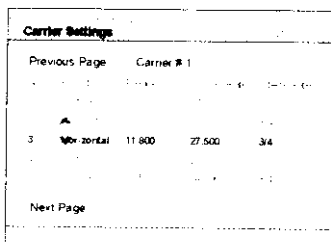If your TV set is with S-Video input, separate RF and Audio/Video input, and your VCR is ....
### Connection 2.
Connection 3.
Connection 4.

Tuning your IRD to the corrected carrier

1. Select one IRD channel from remote control unit or from the front panel's channel Up/Down buttons.

2. Press "**MENU**" button and select "**Carrier Settings**", then press "**OK**", the carrier settings menu shows.

Carrier Settings
Previous Page   Carrier # 1
▲
3   Horizontal   11800   27.500   3/4
Next Page

	Users' Manual SD2000	
Date: January 22, 1998		Page: 8

4. Move cursor to the specified position and key in corrected settings; then press "**OK**". Press "**MENU**" again to return to main menu

5. Select "**Program Installation**" menu and press "**OK**" to the program installation menu; select "**Signal Status**" to see the carrier status and quality, etc..
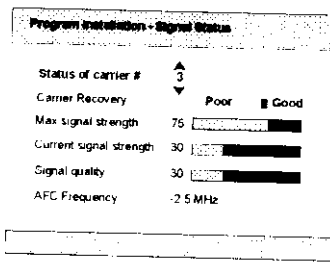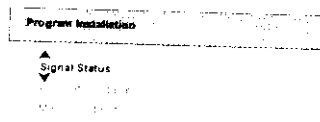

6. The "**Signal Status**" will give you the information of carrier recovery (good or poor), the maximum signal strength, current signal strength, signal quality, and AFC Frequency. That will help to identify the carrier settings.

7. When the "**Carrier Recovery**" shows good, change your menu to "**Program Installation - Automatically**" or "**Program Installation - Manually**", which will help you tuning and finding the channels which are existing on the selected carriers.

8. In automatic mode of "**Program Installation**", IRD scans and installs all the channels existing in your service provider, i.e., all the carriers from your service provider will be scanned. Press "**Start Searching**" to start scanning all the channels from the first carrier, and the captured channels will be arranged sequentially from 1 to the final channel.
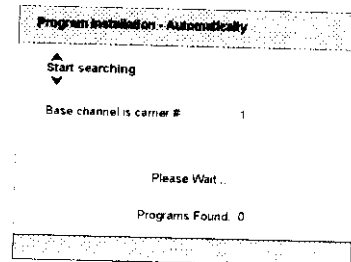
NOTE: *This function can only be effective when your service provider provides DBV service information.*

9. In manual mode of "**Program Installation**", scanning only performs on the selected carrier number. You should assign the beginning channel number where IRD will place the captured programs from there.
10. Select "**Start searching**" to begin.
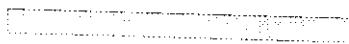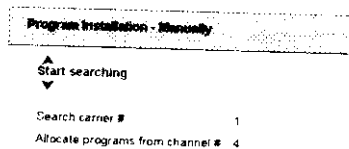
	Users' Manual SD2000	
Date: January 22, 1998	All Rights Reserved	Page: 9

S 2000 Technical specifications

General		DVB recommendations
	Modulation type	QPSK
	Nyquist filter	square-root raised cosine roll-off
	roll-off factor	35%
	Carrier symbol rate	1 - 45 Mb/s
	FEC rate	1/2, 2/3, 3/4, 5/6, 7/8
		MCPC/SCPC multiplexing support
	Interleaving	convolution, depth I = 12
	Inner code	Viterbi
	BER Threshold	6×10^{-2}
	Energy dispersion	IESS 309 following DVB recommendations
Data interface	Serial interface	DVB ASI recommendations
RF input interface	Frequency range	950 MHz to 2050 MHz
	Input level range	-30 dBm to -65 dBm
	AFC range	$\pm$ 3 MHz
	Tuning step	250Khz
	Impedance	75 Ω
Audio		Compliant with ISO 13818-3 MPEG layers 1 and 2
	sample rates	32, 44.1, 48 KHz
	Bit rates	layer I 32 - 448 KHz
		layer II 32 - 384 KHz
	Output impedance	unbalanced output 1V $\pm$ 0.1Vpp into 1K
	support stereo outputs	dual RCA jacks, Left and right channels, (1 SCART)
		Volume control with mute function
Video		compliant with ISO 13818-2 MP@ML
	Aspect ratio	from PES header 4:3
	Frame rate	25/30 (PAL/NTSC)
	Frame size	horizontal 720
		vertical 480
	Output connector	S-VIDEO terminal (Y/C output signal)
		2 RCA jacks (CVBS outputs), (1 SCART)
	Output impedance	unbalanced output 1V $\pm$ 0.1V pp into
RF modulator	Output channel	channel 3/4, (25 - 39)
	Input / output connector	F connector, (IEC)
	Input / output impedance	75 Ω
LNB power	Vertical polarization	18 V -0.5V / +1V I < 400mA
	Horizontal polarization	13 V -0.5V / +1V
Power requirements	Input voltage	90 V to 250 VAC (wide range switching mode power supply)
	Power consumption	35 W Max
Environmental	Operating temperature range	+5°C to +45°C
	Humidity	95% at 25°C
Mechanical	Dimensions	340 x 260 x 70 mm
	Weight	< 5Kg