

## PART 1

## INTRODUCTION

Thank you for purchasing the DSR2800 C/I Common Interface Digital Satellite Receiver. The following information has been compiled to make the installation and operation procedures as simple and user friendly as possible for your complete satisfaction. Please take the time to read through this manual and carefully follow the instructions enclosed.

### PURPOSE OF THESE OPERATING INSTRUCTIONS:

These operating instructions help you to make the best use of your DSR2800 C/I - to adjust it completely to your requirements, to give you as much entertainment as possible. Although operating this Receiver is relatively easy, we would like to provide the necessary help here to avoid any problems arising during installation or operation. This is made possible by detailed, step by step explanations in each section of this leaflet. - Please make use of it, and read through these operating instructions carefully before using the Receiver!

### A) What does 'digital satellite transmission' mean?

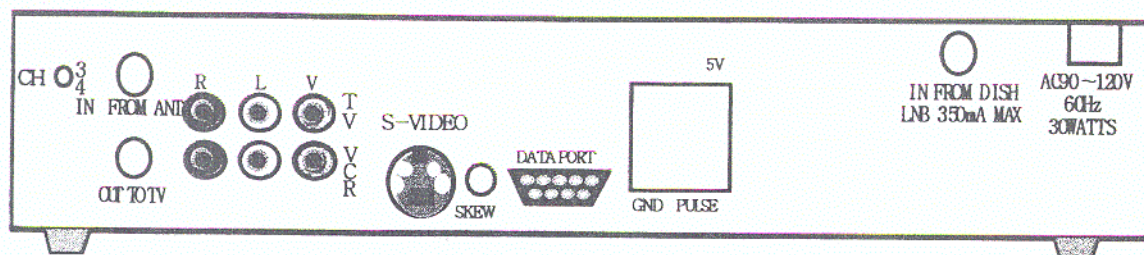
The latest digital satellite technology gives you crystal-clear picture and sound reception in stereo. You can call up the program you want - from the latest feature film to the latest news - whenever you want.

Please note! ⇨ Because of the digital processing of the data it is quite normal that the process of switching from one channel to another takes slightly longer than with analogue satellite receivers.

#### *A short note on the technical background:*

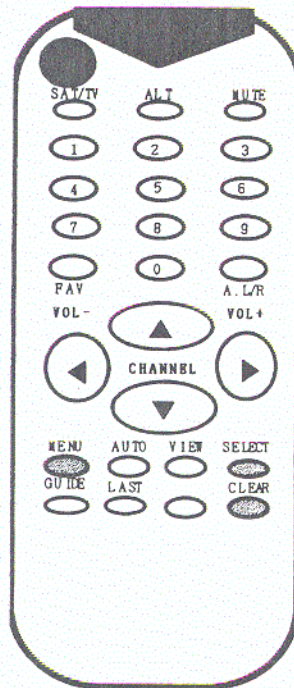
It doesn't matter where a program originates, or whether it is a feature film, a sporting event, a comedy or a drama - the program is transmitted to one of the satellite stations which are distributed throughout America, where it is converted into a compressed, digital signal and transmitted from there to a satellite in space. This signal in turn is transmitted back from the satellite to your antenna (Dish) and from there to your Receiver, which converts it back into signals and decompresses it, so that the signals can be seen on your screen as a clear TV picture. The signal which is sent to the satellite in space is a digital code consisting of ones and zeros. Unlike traditional systems, this prevents any interference which might occur between the transmitting station and your Receiver. By pressing a button (on the remote control of your DSR2800 C/I) you can receive the best, sharpest pictures and outstanding sound quality - as from a CD.

## F) REAR of DSR2800 C/I



- ① **CH 3.4** : Setting TV channel 3 or 4, when using RF modulator output.
- ② **IN FROM ANT, OUT TO TV**  
IN FROM ANT :  
Used to connect an off-air television antenna or cable to your DSR2800 C/I Television system.  
TO TV :  
Used to connect your receiver to your television using coaxial cable.
- ③ **VIDEO & AUDIO R(right) and AUDIO L (left)**  
Used to connect to TV & VCR
- ④ **RS232**  
Used to connect your receiver to your computer for downloading new system program or monitoring system
- ⑤ **SKEW CONTROL**  
Factory setting. Adjust skew pulse width.
- ⑥ **SKEW OUTPUT**  
Used to control your antenna vertically or horizontally.
- ⑦ **LNB**  
LNB : Used to connect the coaxial cable from your satellite dish.
- ⑧ **AC 90V ~ 120V, 60Hz**  
Power Supply

## G) REMOTE CONTROL



### ***POWER KEY***

Used to switch receiver between Power On/Standby Mode.

### ***MUTE KEY***

Used to toggle between normal and muted audio.

### ***SAT/TV KEY***

Used to switch between DTH TV system and local/cable TV broadcasts.

### ***0 - 9 KEYS***

Used to enter channel and P.I.N. numbers. They are also used to select menu items.

### ***FAV KEY***

Used to switch between favorite program lists.

### ***A.L/R***

Used to switch audio left and right.

### ***MENU KEY***

Used to bring up the Main Menu screen.

### ***▲ and ▼ KEYS (multi-function)***

Used to surf channels in the current Channel List while program viewing and highlight selections in the Program Guide and Menu System.

**◀ and ▶ KEYS (multi-function)**

Used to control the volume level while program viewing and page-scroll in the Menu System.

**SELECT**

Used to select highlighted selection in the Menu System.

**CLEAR KEY (dual-function)**

Used to save settings and remove on-screen display, exit Menu System and return to normal program viewing.

**ALT KEY**

Used to select Alternate Language Audio.  
Use to move item window(move the cursor)

**AUTO KEY(dual-function)**

When pressed in Electronic Program Guide screen is viewed it will change to Timer Setting mode and when pressed while viewing programs the Timer List will be displayed.

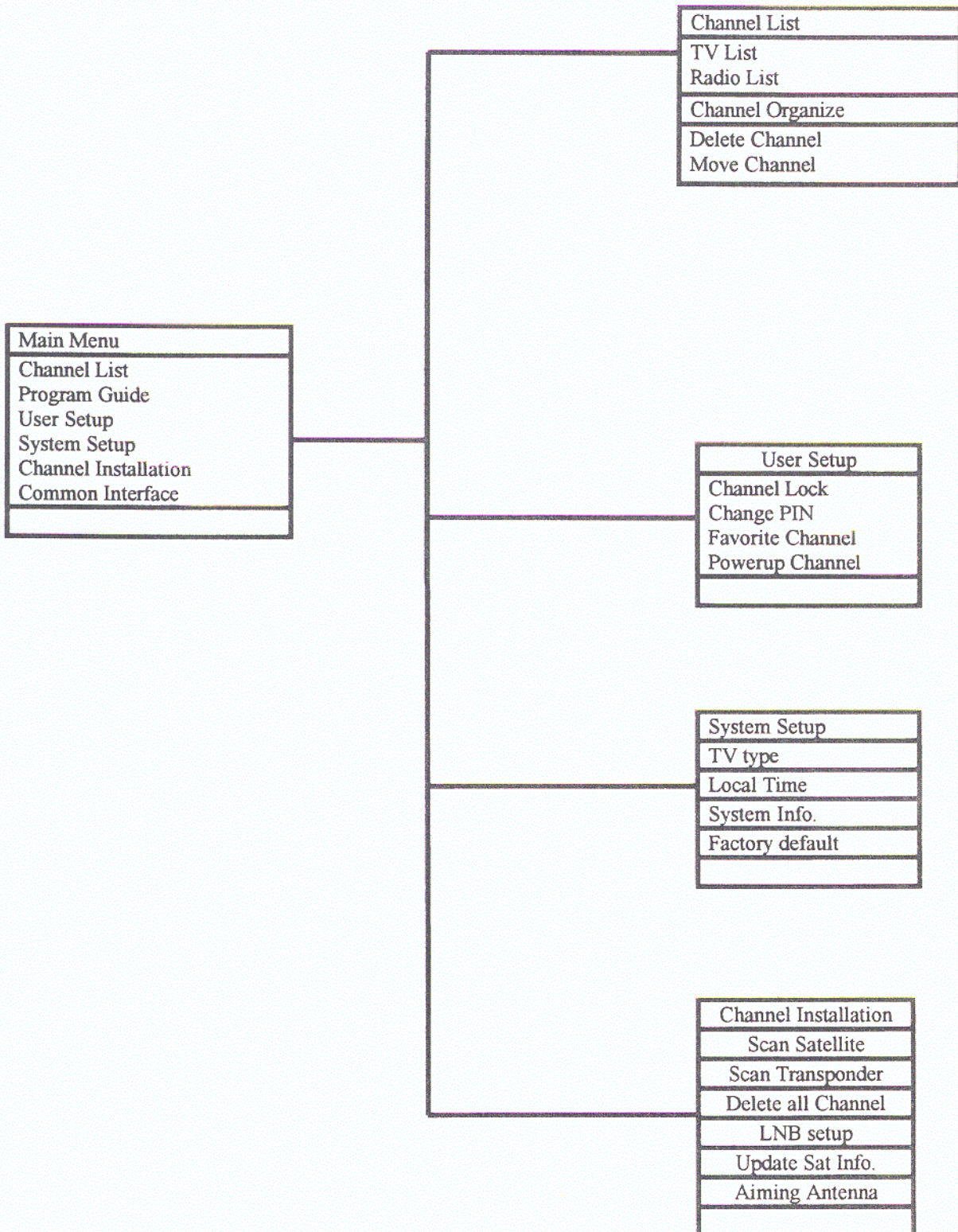
**GUIDE KEY**

To display Electronic Program Guide from satellite.

**VIEW KEY**

Used to display Information Banner.

## H) MENU OVERVIEW



# Technical Specifications

## 1. System

- TV System : NTSC
- Symbol Rate : 2 ~ 30M Samples/s
- Modulation : QPSK(DVB, specification)
- Inner FEC : Viterbi Convolutional Coding  
rate 1/2, 2/3, 4/3, 5/6, 7/8(DVB)
- Outer FEC : Reed Solomon Coding(204, 188)  
T-8(DVB)
- System Decoding : ISO/IEC 13818-1(MPEG2)
- Video Decoder : 13818-2(MPEG2) MPEG1  
11172-2(MPEG1) Compatible  
Wide Screen TV(16:9)  
Normal TV(4:3)
- Picture Resolution: 720(H) × 480(V) × 60 Fields/Sec  
580(H) × 480(V) × 60 Fields/Sec  
480(H) × 480(V) × 60 Fields/Sec  
360(H) × 480(V) × 60 Fields/Sec
- Audio Decoder : ISO/IEC 11172-3(MPEG1) Layer 1, 2  
Multi-Lingual  
Sampling Frequency: 32, 44.1, 48 KHz  
Stereo, Dual, Mono, Joint Stereo
- Memory : DRAM 1MByte, SDRAM 2MByte  
non-volatile 1MByte flash
- Demultiplexing : min 3 PES streams  
Video data rate max. 15Mbit/s  
Audio data rate max. 384Mbit/s
- Number of Channels : up to 1000
- u-Processor : ST20TP2
- Language : ENGLISH

## 2. GENERAL FEATURES

- Dimension : 60(W) × 160(D) × 50(H)
- Operating Temperature : 0°C ~ 40°C
- Storage Temperature : -20°C ~ 60°C
- Humidity : Operating - less than 85%  
Storage - less than 90%
- Remote Control : Full Function Infra-Red Remote  
Control Unit

## 3. TUNER

- Output connector : 1x F type, to connect  
an analogue receiver.
- Input Frequency Range : 950 ~ 2150 MHz
- Input Impedance : 75 Ω
- Connector Type : F TYPE
- Bandwidth : 27 MHz / 55MHz
- Input Level : -65 ~ -25 dBm
- First IF Frequency : 479.5 MHz
- AGC Voltage : 0 ~ 5V
- Channel Selection : PLL Frequency Synthesizer
- PLL Control Interface : IIC BUS
- Output Signal : I, Q Analog Output With 2V<sub>rms</sub>  
(LOAD 1KΩ)
- AFC Range : ± 2.5 MHz
- Tuning System : PLL Synthesiser

## 4. Front Control

- Rudimentary receiver control

## 5. Power Supply

- Type : SMPS
- Input Voltage : 90V ~ 120Vac
- Voltage Frequency : 60 Hz
- Protection : Internally Fused

## 6. LNB control

- LNB Power Supply : 14V/18V, 350 mA Max
- Short circuit protected

## 7. COMPOSITE VIDEO OUTPUT

- Composite Video : NTSC
- Level : 1V<sub>rms</sub> (LOAD 75Ω)
- Impedance : 75 Ω
- Connector : RCA PHONO JACKS
- S/N Ratio : 60 dB Min.(UNWEIGHTED)

## 8. AUDIO OUTPUT

- Operating Mode : Stereo, Dual Mono, Joint Stereo
- Output Level : 1.2 ± 0.2V<sub>p-p</sub>
- Output Connector : RCA Phone Jack(Female),  
Right : RED, Left : WHITE
- Left/Right Balance : ± 2 dB Max
- S/N Ratio : 70 dB Min

## 9. RE-MODULATOR OUTPUT

- TV Standard : NTSC
- Level : 77 ~ 83 dBuV
- Output : CH 3, CH 4
- Pre-Set Channel : CH 3
- Connector : F-TYPE
- Audio : Mono

## 10. ASYNCHRONOUS DATA OUTPUT

- Standard : RS232
- Bit Rate : 115200 bps
- Connector Type : 9 Pin D-Type