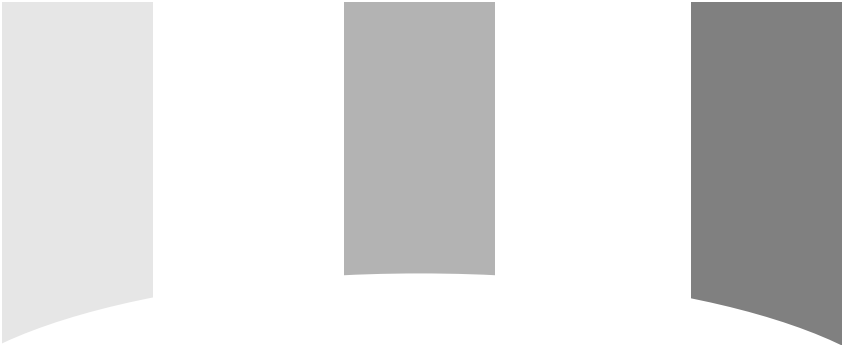




# **SAT CRUISER**

**DSR - 301 ACE**

User Guide

### INFORMATION TO THE USER

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

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

#### **WARNING**

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

.....

Information contained in this manual is subject to change without notice. No part of this publication may be copied, reproduced, or translated to another language for any purpose.

### FOR YOUR SAFETY

- Be sure to read the user manual before starting the operation of the receiver.
- Do not open the housing. The receiver contains high-voltage components and parts.
- Do not expose to rain or moisture.
- Do not make objects or fluid enter the housing through the ventilation slot. If any spilt liquid went into to the housing, unplug the power cord and call your local service provider.
- Do not place close to any heat source.
- Do not press with hard or heavy object.
- To protect possible malfunction by lightning, we recommend you to use power surge unit. Call your local dealer for advise.

## For Your Safety

|                                                              |           |
|--------------------------------------------------------------|-----------|
| <b>1. Before Getting Started</b> .....                       | <b>1</b>  |
| 1.1 Main Features .....                                      | 1         |
| 1.2 Accessories .....                                        | 2         |
| <b>2. Controls and Functions</b> .....                       | <b>3</b>  |
| 2.1 Front Pannel .....                                       | 3         |
| 2.2 Rear Pannel .....                                        | 4         |
| 2.3 Remote Control Unit .....                                | 5         |
| <b>3. Connections</b> .....                                  | <b>7</b>  |
| 3.1 Connecting to the TV, VCR and Satellite Antenna .....    | 7         |
| 3.2 Connecting to the TV, HiFi system and 0/12V switch ..... | 8         |
| 3.3 Connecting DiSEqC switch .....                           | 8         |
| 3.4 Connecting CA Module .....                               | 9         |
| <b>4. Settings and Operations</b> .....                      | <b>10</b> |
| 4.1 Basic Settings .....                                     | 10        |
| 4.2 Viewing TV(or Radio) .....                               | 13        |
| 4.3 Other functions .....                                    | 17        |
| 4.4 System Settings .....                                    | 18        |
| 4.5 CA Information .....                                     | 21        |
| <b>5. Appendix</b> .....                                     | <b>22</b> |
| 5.1 Troubleshooting .....                                    | 22        |
| 5.2 Specification .....                                      | 22        |
| 5.3 Glossary .....                                           | 23        |

### 1.1 Main Features

- Easy Menu Function
- TV Guide Function
- RF Output Function
- Electronic Program Guide(EPG) for On Screen Channel Information
- Software Upgrading Function Through RS-232C Cable by PC
- Perfect DiSEqC 1.2 and 0/12V Support for Various Antenna System or 2-LNB on 1 Antenna System
- Supports of Ku/C band, SCPC and MCPC
- Additional Audio Output Function for Connection to Hi-Fi Audio System
- Other Functions of Remote Controller, Receiving Level Selection, Channel Editing, Menu Language Selection and Audio Selection
- Digital free-to-air Satellite Receiver
- NTSC & PAL Output Function  
Regardless of the TV type, NTSC and PAL channels can be viewed by selection

When PAL channel is viewed on NTSC TV, small deletion on up & down sides of the screen may occur and it is normal, as its conversion is managed by software. And darker color on the bottom side of the screen may occur, when NTSC channel is viewed on PAL TV.

- 500 Transponders and 2000 Channel Memory Function
- Teletext Supported
- Multi Language Function(Menu, Audio)

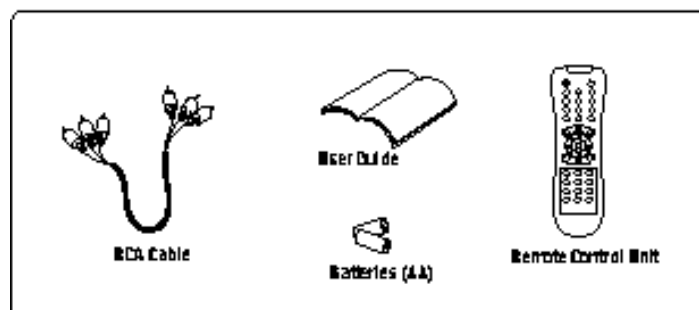
## 1.2 Accessories

User Manual

Battery

Remote Control Unit

RCA cable



### 2.1 Front pannel



#### **STANDBY ON**

Turn the power on/off.

#### **MENU**

Shows the menu application.

#### **Channel ▲ ▼**

Change channel, move menu, or input frequency value.

#### **Volume ◀ ▶**

Control volume, change item on menu or input frequency value.

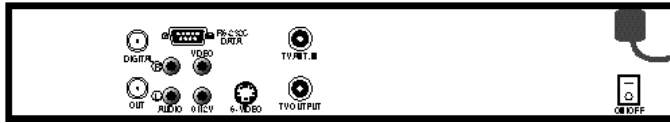
#### **OK**

Select menu or value on menu item.

#### **CI Slot**

Insert CI module into CI slot.(It is needed for only model contained Common Interface function)

## 2.2 Rear pannel



### DIGITAL

It receives signals from the LNB in the range of 950 ~ 2150MHz. Connect a satellite dish to DIGITAL.

### OUT

It sends signal to the another receiver.

### RS-232C

It receives data by connecting to PC for software upgrading. Connect with RS-232C cable a PC and receiver.

### AUDIO

It provides stereo audio output. Connect the audio on TV to AUDIO with RCA cable.

### VIDEO

It provides composite video output. Connect the Video on TV to VIDEO with RCA cable.

### 0/12 VOLT

It provides 0 or 12V output for external LNB switch.

### TV ANT IN

The signal supplied to this connector from a TV antenna will be sent to TV antenna output. Connect a TV antenna to TV ANT IN.

### TV output

It provides a modulated audio and video from the receiver. Connect the TV/VCR on TV to TV/VCR with the RF cable.

### ON/OFF

The switch is to turn on or off the main power of the receiver mechanically.

### 2.3 Remote Control Unit

Open the controller cover on the back and insert two batteries (AA - 1.5V).



#### **POWER**

Turn the power on/off.

#### **TV/SAT**

Select between TV Channels and Satellite channels for RF output.

#### **Numeric(0~9)**

Move menu, change channel or input frequency value.

#### **CLEAR**

Clear wrong number input or delete channel from TV (Radio) list or favorite channel list.

#### **MUTE**

Deactivate current sound.

#### **MENU**

Shows the menu application.

#### **EXIT**

Exit from the menu.

#### **Page UP/DOWN**

Move to previous/next page on TV(Radio), Favorite Channels or Edit TV(Radio) Channels.

#### **Volume ◀ ▶**

Control volume, change item on menu or input frequency value.

#### **Channel ▲ ▼**

Change channel, move menu, or input frequency value.

#### **OK**

Select menu or value on menu item.



### PROGRAM GUIDE

Shows the broadcasting information.(Video - Audio - LNB)

### INFORMATION

Shows the information of current channel. Click the INFO button twice, TELETEXT mode will be displayed.

### FAVORITE

Add TV or Radio channel to the favorite list on Edit TV(Radio) Channels, or watch favorite channel from your favorite list.

### TV

Change to TV mode from radio channel.

### RADIO

It is for fast change to radio mode from TV channel. Shows the current Radio program list.

### FLASH BACK

It is to move to previous channel.

### MULTI LANGUAGE

Select the audio language from 2 or more audio language channels available.

### MULTI AUDIO

Select Stereo, Main or Sub from multi language channels available.

### SCREEN SIZE

Select between standard 4:3 and wide 16:9 screen sizes.

### \*ANA/DIGI

Change between analog mode and digital mode.

### \*OSD

When analog satellite signal is received, it is to turn OSD on or off.

### TEXT

Change to Teletext mode.

### \*\*WEST/EAST

The function of EAST/WEST button is to move the Position Actuator westward/eastward.

### Note

---

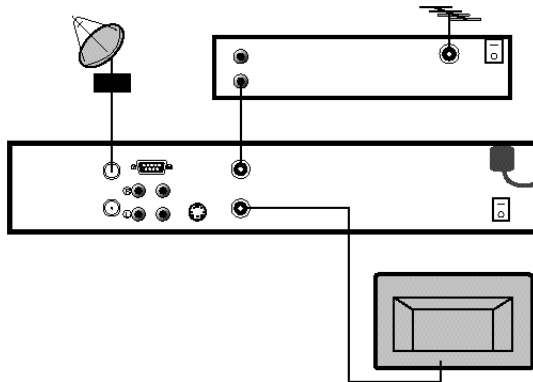
Buttons marked with \* operate only in model contained analog function.

Buttons marked with \*\* operate only in model contained positioner function.

### 3.1 Connecting to the TV, VCR and Satellite Antenna

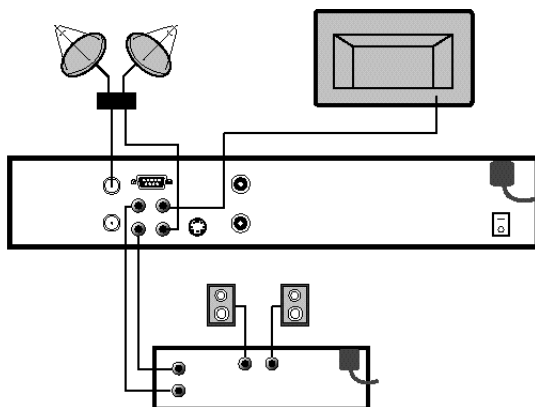
It is not necessary to adjust power, as the product is of free - voltage (100 ~ 240V )

1. Connect the RF cable from the TV OUTPUT on the satellite receiver to a TV and connect the RF modulate on the VCR and the TV ANT.IN.
3. Connect an antenna to the LNB socket on the VCR or other receiver and cable of the satellite dish to the DIGITAL on the satellite receiver.



### 3.2 Connecting to the TV, HiFi system and 0/12V switch

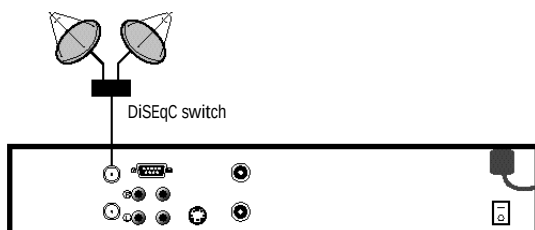
1. Connect the RCA cable from the VIDEO INPUT on the TV to the VIDEO on the satellite receiver.
2. To use 0/12V switch, connect one cable of the 0/12V switch to the 0/12V on the satellite switch and connect another cable to the DIGITAL on the satellite receiver.
3. Connect a RF stereo cable from the AUDIO RL on the satellite receiver to the AUDIO RL on the HiFi system.



### 3.3 Connecting DiSEqC switch

If you have one antenna equipped with many LNBs or two antennas with one LNB on each, you need a DiSEqC switch.

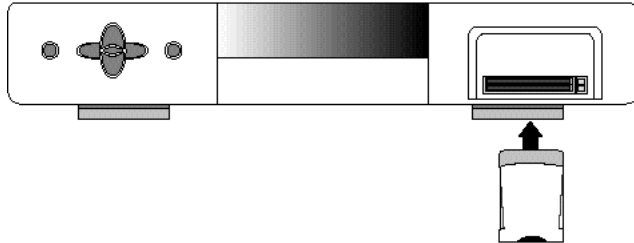
1. Connect the LNBs to a DiSEqC switch at first.
2. Connect the antenna cable to the OUT connector on the DiSEqC switch and connect the end of the cable to the DIGITAL on the satellite receiver.



### 3.4 Connecting CA module

To receive the distrivuted program of Service Provider you need a Smart card or CI module.

1. Insert CI module fully into the CI slot for watching TV programmes from Service Provider.
2. Insert your card fully into the slot on the CI module, so that the microchip(the yellow spot) faces upwards and inwards.



### 4.1 Basic Settings

If it is the first time using a receiver, you should set parameters for system configuration. Refer to the following section.

1. Turn on your TV and Satellite receiver.
2. Press the MENU button, main menu screen will appear as shown below.



#### <LNB Power>

1. Select Installation on the Main Menu.
2. Select LNB Power.



3. If LNB Power is independently supplied from outside source, set the LNB Power OFF. Otherwise set it ON.



4. After completion of LNB Power setting, go back to Installation menu by pressing MENU.

If you have a DiSEqC 1.2 motorized system to control your satellite antenna you have to make the following setting. First, you must select ON on DiSEqC 1.2 of LNB Setting in the TP Configuration.  **Please refer to the TP Configuration section** >

- [illegible]

- 
- | Alert Name      | Alert Type      | Alert Severity | Alert Status | Alert Action |
|-----------------|-----------------|----------------|--------------|--------------|
| CPU Usage       | CPU Usage       | High           | Active       | Send Email   |
| Memory Usage    | Memory Usage    | High           | Active       | Send Email   |
| Disk Usage      | Disk Usage      | High           | Active       | Send Email   |
| Interface Usage | Interface Usage | High           | Active       | Send Email   |
| System Load     | System Load     | High           | Active       | Send Email   |
| System Uptime   | System Uptime   | High           | Active       | Send Email   |
| System Health   | System Health   | High           | Active       | Send Email   |

The Satellite shows current name of satellite, and DiSeqC1.2 Pos. shows positioner value of the current satellite.

DiSEqC1.2 Command changes the current mode between Installer and User.

In User mode this is used to tune the position of the motor. In Installer mode this is used to search for the position of a satellite manually.

Stores the current position of the motor for the selected satellite name.

Moves the motor to the stored position of the selected satellite name.

You have to know valid value for your LNB at first.

1. Select TP Configuration of the installation.

- select one from any of USER1 ~ USER 19.



3. To change value of LNB from each satellite, press OK button from LNB.



**< Standard >**



**< Universal >**

- frequency value on L.O.Freq. and L.O.Freq.Low by using VOL ◀ ▶ or numeric key.

For standard type of LNB, select Standard from LNB Type and input correct value on L.O.Freq..

- case of STANDARD, select OFF from 22KHz. If more than 1 antenna is in use, select 0V or 12V from 0/12V switch, or select a proper position from Mini A, Mini B, DiSEqC 1 ~ DiSEqC 4 by different DiSEqC type as you are using DiSEqC switch.

6. Select Search Channels on the TP Configuration press OK, all the available TP will be searched automatically.

7. Move to desired TP with CH ▲▼ on the RCU. If there are no transponder data which you want, move to Add and press OK button.



8. Select the desired satellite. And input correct values of Frequency, Polarization and Symbol Rate. Select the Polarization value as Hor or Ver. If you did not know accurate polarization value select Auto.

### Note

You should find the correct data from satellite magazine or internet(<http://www.SATCODX.com>).

9. After all the values are input, select Search Channels and wait until the automatic search is completed.



If FTA only is selected as YES, only free channels will be searched without scrambled pay channels. Otherwise all channel with scrambled pay channels will be searched. Scrambled pay channels is marked as \$ at the beginning of the channel name.

After successful completion of channel searching, move to TV Channels or Radio Channels on MAIN MENU to select currently received channels. Then you should select the TV channel or Radio channel which you want. After then you can watch the TV program or listen to the radio.

To find not only TP information but also all the channels from current satellite, select Network Search.

### Note

Depending on certain TP or satellite, the Network Search function may not work.



**Settings and Operations**

---

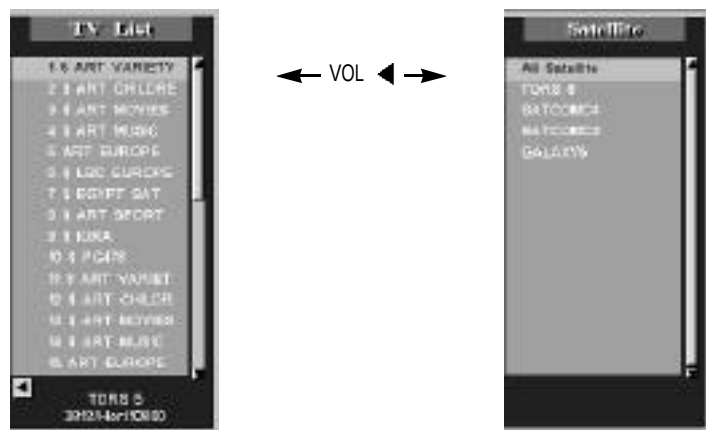
12. In case of searching a certain satellite which can not be searched by TP Search, add channels by PID. Select Add Channel and input proper Channel name and input the values of Video PID, Audio PID and PCR PID. Then, press OK button from the Add item.



## 4.2 Viewing TV(or Radio)

1. Press the Power button.
2. Press the TV(or Radio) button.
3. If you want to see all TV channel list, click the MENU button and then select the TV Channels(or Radio Channels). TV Channels(or Radio Channels) window will appear.

Click the  , you will see current Satellite name box. Select any satellite in the satellite name box, only the TV list of selected satellite will be displayed.



## Viewing Favorite Channel



1. Press FAV key.
2. Select a CH  . To move to next or previous page, press PAGE UP/DOWN buttons on Favorite TV(or Radio) List.

### Edit TV Channels / Edit Radio Channels

From these menus you can create and edit channel list.

Press OK button from Edit TV Channels and similar screen will be shown as below.



### Arrange channel

To change the channel orders from TV List, press OK button from your desired channel. Then you should move to desired number by pressing CH ▲ ▼, after then press OK button. Its orders will be changed.

### Delete channel

To delete a certain channel from current TV List, press CLEAR button on the channel to be deleted. To confirm the deletion, press CLEAR button once more. To cancel the deletion procedure, press FAV button.

### Creat favorite channel

You can creat favorite channel list, containing the channel which you want to watch frequently.

Press FAV button channel you want, and then selected channel will be moved to Favorite List box. To delete the disired channel from the Favorite List, press CLEAR button.

### Help function

You can see the functions of each button in Edit TV List. Select the HELP button.



### Sort

If you want to sort channels in order, select the SORT button in Edit channels.

You can select the order you want.



### Lock Channels

From here you can lock channels in any of the lists in order to prevent your children from watching.

If you have the password already and want to lock a certain channel, press F.BK button at the desired channel. Everytime you watch the channel, the unit will ask you to input password.

### Edit Channel Name

1. Press INFO button on Edit TV or Edit Radio list. Cursor will be moved by using VOL ◀ ▶, CH ▲ ▼.



2. Press OK button on desired alphabet. To delete pre-selected alphabet, press CLEAR button.
3. To change character set(upper, lower, number), press INFO button. By using MENU button, it will be automatically stored and moved to previous menu.

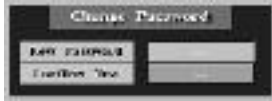
## Settings and Operations

---

### Parental Control

If you use this function you have to enter the password everytime you start this satellite receiver.

1. Select Parental Control on the installation.
2. To secure program setting and installation, select Change Password.



3. Input 4 digits New Password. And input password Confirm New once more. After all the password function is set, the unit will ask you to input password to get into the menus of Installation and System Settings. Input correct password which was already stored.



If the password is forgotten, contact your service provider.

### 4.3 Other functions

#### Audio Selection

If broadcasting channel is supporting multi language, different language can be selected from Audio Selection.

1. To select different language on current channel, select Audio Selection on the Main Menu.
2. Press OK button on your favorite language.

According to different audio data on each channel, up to 4 different audio language types can be selected.

#### TV Guide

Press GUIDE button of RCU for channel information. This function works in digital mode only.



#### Teletext function

Pressing the TEXT button will open a Teletext page. Select teletext pages with the numeric buttons on the RCU.



### **From Teletext Screen**

CLEAR

*Overlay background screen and teletext mode according to the following order(transparency - Teletext only - Opacity)*

INFO

*Hold of current Teletext page*

PAGE UP/DOWN

*Move previous and next page in one*

CH UP/DOWN

*Move previous and next page in one*

FAV/TV/RADIO/F.BK/LANG/AUDIO

*100/200/300/400/500/600 page level*

0 ~ 9

*Select Teletext page*

EXIT

*Exit teletext mode*

### **Clock Function**

#### **- From the Front Pannel**

Menu button

*The clock shows 12:00 o'clock on the front panel when the power is off. If user press MAIN button, the 12:00 o'clock is on and off continually and then user can set up the time using the VOL, CH, OK buttons. If user press MENU button again, the setting is finished and the time works regularly.*

Channel button

*This CH ▲ ▼ allows user to set up the time.*

Volume button

*This VOL ◀ ▶ allows user to set up the minute.*

OK button

*This OK button allows user to finish the setup of time. If user press OK button after setting up time, the on and off is gone on the front panel and the time works regularly.*

## 4.4 System Settings

Please make sure to press OK button always, after the changing items of System Settings.



### Audio language

Only if a current channel contains 2 or more audio language information, set the Audio Language as English or other favorite language. Then press OK button for its confirmation.

### Menu Language

For menu language selection, select desired language from Menu Language of system Settings.

### Audio mode

Select desired audio mode among Stereo, Main or Sub. For general selection, Stereo is recommended.

### Time Adjustment

To set the receiver time for EPG(Electronic Program Guide), set the time according to GMT(Greenwich Mean Time) by using CH ▲ ▼. If EPG in England is needed to set, adjust as 00:00. In the case of Beijing, adjust as 08:00.

### TV Aspect Ratio

Select 4:3 for normal TV or 16:9 for wide TV. Then press OK button for its confirmation. If 4:3 ratio is selected on normal TV for wide channel, both left and right side of the screen will be a bit trimmed. If 16:9 ratio is selected on normal TV for wide channels the screen trim symptom will not occur. However the screen will be in narrow view.

Wide screen will be properly viewed, only when wide channel is broadcasting.



### **TV Standard**

Except for a few, most countries are using PAL system for TV signal, accordingly set TV Standard as PAL. To be more flexible for NTSC or PAL signal from different satellites, select MULTI for automatic signal conversion. Then press OK button for its confirmation.

### **RF mode**

If the satellite receiver is connected to the TV with a RF cable, you have to set the RF mode, which is dependent on the country where the satellite is being used.



1. Select the accurate RF System type of country the satellite receiver is used.
2. Select the Channel No(Select a channel of RF output of TV set that you are using).
3. Select TV or SAT on the RF out.

### **Color**

1. The color change from OSD display menu screen is available from 1 to 4 on Color Set. By changing the Color set numbers, the changes in color can be easily noticed from total different color sets.



2. To make partial changes in each section, change the Color ID and input different values to Red, Green, and Blue. Color ID 1 ~ 7 is the color of ICON and the Color ID 8 ~ 15 is the colors of menu and background.

### **S/W Version**

Show software version. Select S/W Version.

### **Initialization**

Press OK button from Initialization. If you want initialization, select OK button, otherwise, select any button of remote controller. The receiver will be turned off and on automatically after 1~2 seconds to initialize all the values to factory setting mode.

As this procedure will clear and set to factory default values, end users are not recommended to operate this function.

## **4.5 CA Information**

CA modules and Smart Cards are licenced to Service Providers.

If you want to watch TV programmes from a Service Provider you must use a CA module(Conditional Access) with a Smart Card. If no CA module is used you can only watch FREE TO AIR TV programmes.

Press CA Information of MAIN MENU. Then, the following sub menu will be shown as below.



You will get access to information and menus connected to the Common Interface(CA) Module.

### **Note**

The mains plug must not be plugged in before inserting the CA module.

### 5.1 Troubleshooting

| <b>SYMPTOM</b>                                     | <b>SOLUTION</b>                                                                                                                          |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| No picture display and no LCD channel display      | Check the power connection                                                                                                               |
| No picture display with normal LCD channel display | 1. Check the connection with TV<br>2. Check the connection between TV outside input and receiver cable                                   |
| No satellite channel with MAIN MENU screen on      | 1. Check the LNB, Frequency, Polarization and Symbol Rate from Installation menu<br>2. Check the connection of receiver or Antenna angle |
| No sound with normal screen display                | 1. Check between sound output connector and TV<br>2. Check if it is not in MUTE condition                                                |
| Remote control unit does not work                  | Check if the batteries in remote control unit are dead                                                                                   |

### 5.2 Specification

|              |                     |                                            |
|--------------|---------------------|--------------------------------------------|
| LNB/Tuner    | RF input frequency  | 950 to 2,150MHz                            |
|              | RF input level      | -65 to -25dBm                              |
|              | LNB control         | DiSEqC1.0/1.2                              |
|              | LNB power           | 13V/18V(Max.400mA)                         |
|              | LNB tone switch     | 22KH $\pm$ 2KHz(0.6Vp-p)                   |
|              | External LNB switch | 0/12V(100mA)                               |
| MPEG         | Video               | MPEG-II Main Profile@Main Level            |
|              | Audio               | MPEG-II layer I&II                         |
| VIDEO        | Resolution          | 720 $\times$ 576                           |
|              | Video output level  | 1Vp-p into 75 $\Omega$                     |
|              | Aspect ratio        | 4:3, 16:9                                  |
| Audio        | Frequency range     | 20Hz to 20KHz                              |
|              | Sampling frequency  | 32/44.1/48KHz                              |
|              | Frequency response  | 20Hz to 20KHz Hi-Fi Quality Digital stereo |
|              | Audio output level  | 2V rms into 600 $\Omega$                   |
| General Data | Supply voltage      | (100 ~ 240V AC, 50/60Hz)                   |
|              | Power consumption   | Max.100W(Standby 15W)                      |
|              | Operating temp.     | 0 $^{\circ}$ C ~ 50 $^{\circ}$ C           |
|              | Storage temp.       | -40 $^{\circ}$ C ~65 $^{\circ}$ C          |
|              | Dimensions          | 340(W) $\times$ 247(D) $\times$ 67.5(H)mm  |
|              | Weight              | 3.0Kg                                      |

### 5.3 Glossary

**LNB**

Low Noise Block converter. The LNB is an electronic unit mounted on satellite dish to receive signals reflected by the dish and convert to signals.

**L.O. frequency**

Local Oscillator frequency as a part of LNB. It converts the satellite frequency to usable signals for the receiver.

**Polarization**

Polarization allows several programs to be fitted into same frequency band.

**Symbol Rate**

Size of the digital package transmission

**Parental Control**

The function is to allow parents to lock channels for unsuitable viewers. A locked program can only be unlocked with the password.

**DVB**

Digital Video Broadcast. International standard for digital TV broadcasting

**MPEG**

Moving Picture Experts Group, A system for compression of digital data

**RF**

Radio Frequency

**EPG**

Electronic Programming Guide. Program information is displayed on the TV screen, depending upon the satellite condition.

**MHz**

Abbreviation for MegaHertz. The prefix mega means million, and Hertz means cycles per second.

**DiSEqC**

Digital Satellite Equipment Control

## Appendix

---

### ***NTSC***

National Television Standards Committee

### ***PAL***

Phase Alternate Line

### ***Ku band***

11~18GHz Frequency

### ***C band***

3~4GHz Frequency

### ***SCPC***

Single Channel Per Carrier

### ***MCPC***

Multi Channel Per Carrier

### ***PID***

Packet Identifier.

### ***TP***

TransPonder

### ***SCART, RCA***

A connector for connection of Satellite receiver, VCR and TV sets.

### ***VCR***

Video Cassette Recorder.

