

# SUNSTAR

## USER'S MANUAL

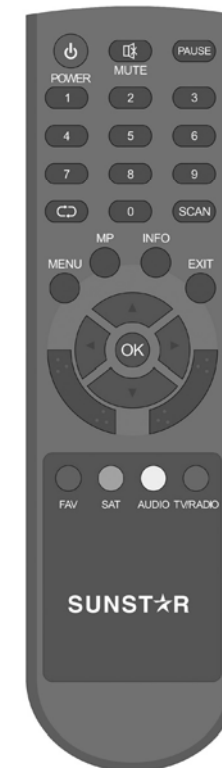
*Digital  
Satellite  
Receiver*



**Free to Air**



### 1. Remote Control Unit



- ⏻ : Press to switch between Operation and Standby modes
- 🔇 : Press to temporarily cut off sound
- 0-9 : Press to enter required numbers in the input box or select a channel to watch
- PAUSE: Pause
- TV/R : Switch between TV and Radio modes
- EXIT : Return to previous menu
- MENU : Display the main menu on screen
- O K : Execute the selected item in the menu
- C H ◀▶ : Channel +/-
- VOL ▲▼ : Volume +/-
- ↺ : Switch back to previous channel
- Audio : Display the Audio Setup window
- Page+ : Page up
- INFO : Show information of the current channel
- Scan : Auto Search
- MP : Multi-picture
- FAV : Favorite channels
- Sat : convert satellite

## FIRST STEPS

1. Insert the plugs of the receiver's and the auxiliary equipments in the power socket and switch them on.
2. Select the AV mode on the TV set.
3. The receiver is delivered with pre-programmed TV channels and can be used immediately. To see if there are any new channels, then activate the channel search.

### Caution!

Check the connections of all equipment and the antenna are in working order before connecting the receiver to the power source.

## MENU INFORMATION

The user interface has various ways to navigate through the menus and functions. Some of the keys on the remote control unit give direct access to functions. The most important keys are identified as EPG, colored keys, MENU and OK. Other keys are multi-functional which means that their function changes dependent of the mode that you are in.

Unless otherwise specified; this note explains the way you can navigate through the pages of the user menu.

1. Use the ▲▼ keys to move the cursor up or down from one line to another line.
2. Use the ◀▶ keys to move the cursor left or right from one line to another line.
3. Use the OK key to enter the sub-menu.
4. Use the EXIT key to leave the menu and return to the view mode.
5. In a sub-menu:
  - use the ◀▶ keys to select one from the preprogrammed options in the sub-menu.
  - use the OK key to confirm the selection;
  - the yellow cursor indicates the active selection

## THE MENU OPERATION

Once you have installed and connected the cables of the receiver, press menu key on the RCU to display the Main Menu.

This menu consists of 4 menu options as shown below.



- ◇ Channel
- ◇ Satellite
- ◇ System
- ◇ Tools

Use the ◀▶ keys to move the cursor up or down in the menu. Use the OK key to confirm a selection.

To escape the menu system at anytime, press EXIT key on the RCU.

### 1. Channel

If there are some programs stored in the receiver, user can press OK to enter the menu.

#### 1.1 TV Channel

You can manage the stored channels, TV and radio channels, deleting, shorting, locking, skipping, them very easily.



Access to the editing channels screen, through the main menu:

1. Press MENU to enter the main menu.
2. The option Channel will be highlighted.
3. Select TV Channel to manage the TV channels, or Radio Channel to manage the radio channels. Press OK, you will see the edition channels screen.

### To delete a channel:



1. In the edition channels screen, press "1" in the remote control.
2. Locate the channel you want to delete, and press OK. The channel will be marked with the symbol "X".
3. Repeat step 2 with those channels you want to delete.
4. To confirm the deletion, press EXIT to exit the edition channels menu. You will see a confirmation message.
5. Pressing the arrow keys select option "OK" and press OK to confirm the deletion, or select Cancel and press OK to cancel.

### To move a channel:



1. In the edition channels screen, press "2" in the remote control.
2. Pressing the arrow keys, select the channel you want to move and press OK. You will see the channels marked with the symbol.
3. Pressing the arrow keys, locate the point you want to put the selected channel and press OK.
4. Repeat steps 2 and 3 for those channels you want to move.

### To add channels to the favorite lists:



1. In the edition channels screen, Locate the channel you want to favorite and press "3" in the remote control.
2. You will notice the sub-menu with favorite order in screen.
3. Select the desired one of the six favorite order, and press OK.
4. The channel will be marked with the symbol.
5. Repeat step 1, 3 and 4 with those channels you want to favorite.

### To edit the channel:



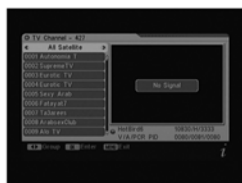
1. In the edition channels screen, Locate the channel you want to edit and press "4" in the remote control.
2. You will notice the sub-menu in screen.
3. You can press the arrow keys to select and use the numeric keys to input the value of parameter.
4. Select Save to confirm them, otherwise select Exit to go back.

### To delete all channels:



1. In the edition channels screen, press "5" in the remote control.
2. All channels will be marked with the symbol "X".
3. To confirm the deletion, press EXIT to exit the edition channels menu. You will see a confirmation message.
4. Pressing the arrow keys select option "OK" and press OK to confirm the deletion, or select Cancel and press OK to cancel.

### To change satellite:



1. In the edition channels screen, press "SAT" in the remote control.
2. The cursor will jump to the title at the top of window.
3. Press ◀▶ to select the desired one from the stored satellites. The channel list will show all programs under the current satellite.
4. Press OK to go back the channel list.

### To Sort channel:



1. In the edition channels screen, Press "6" in the remote control.
2. You will notice the sub-menu with sort order in screen.
3. Select the desired one of the three sort order in screen and press OK.
4. The channel will be rearranged.

### To Lock channel:



1. In the edition channels screen, press "8" in the remote control.
2. The channel will be locked.
3. You must input password if you want to watch the locked number in condition that the channel lock is set to lock.

## 1.2 Add Channel

In the Channel menu, select the option Add Channel and press OK.



**Satellite:** Press OK to deploy the satellite list, Select the satellite you want to check with pressing ▲▼. You can also press ◀▶ to select the satellite.

**TP:** Transponder, select the desired one from the pre-program options.

**TP Frequency:** Input the value by using the numeric keys.

**Symbol rate:** Symbol rate of the current transponder

**Polarization:** Vertical or Horizontal polarization.

**Search:** Select the desired mode for searching.

# Edit Satellite:



- (1). **Satellite:** Press OK to deploy the satellite list. Select the satellite you want to check with pressing ▲▼. You can also press ◀▶ to select the satellite.
- (2). **LNB Type:** Select proper LNB type using the arrow keys according to your physical LNB type.
- (3). **LNB Freq(1, 2):** Enter the proper LNB frequency referring to your LNB using the numeric keys on the RCU.

(4). **LNB Power:** Select the desired option. If your STB is connected to another receiver through LOOP THROUGH support, you should check which receiver is connected directly to the LNB. In case the other receiver is directly connected to the LNB, then select OFF.

(5). **22K:** 22KHz control is automatically set for each LNB alternative. If "universal" is selected, 22KHz control should be "off state".

(6). **DiSEqC:** Select the port number to get the RF signal from the LNB, which is connected, to DiSEqC switching box.

(7). **Positioner:** Satellite position. If your antenna is positioned incorrectly, you will not receive signal from the satellite. So the STB provides DiSEqC1.2 to let you have exact information to direct your antenna toward a satellite.



- Satellite:** Select the desired satellite.  
**TP:** Select the desired transponder.  
**Position NO.&Save:** Select the position No. or null.  
**Limit Setup:** Setting of limits for the antenna.  
**Movement:** The satellite can now be turned into the desired direction using the arrow buttons.  
**Continuous Move:** The satellite can be continuous moved to the desired direction.  
**Recalculation:** Press OK to recalculate.  
**Go to Reference:** A starting point for the satellite search function can be selected by pressing the OK button.

**Add TP:** Add a new transponder for the current satellite.

**Delete TP:** Delete the current transponder.

## 2. Satellite

### 2.1 Add Satellite



(1). **Satellite:** Press OK to enter the submenu, and rename the name of the new satellite. Press MENU to exit this menu.

(2). **LNB Type:** Select proper LNB type using the arrow keys according to your physical LNB type.

(3). **LNB Freq(1,2):** Enter the proper LNB frequency referring to your LNB using the numeric keys on the RCU.

(4). **LNB Power:** Select the desired option. If your STB is connected to another receiver through LOOP THROUGH support, you should check which receiver is connected directly to the LNB. In case the other receiver is directly connected to the LNB, then select OFF.

(5). **22K:** 22KHz control is automatically set for each LNB alternative. If "universal" is selected, 22KHz control should be "off state".

(6). **DiSEqC:** Select the port number to get the RF signal from the LNB, which is connected, to DiSEqC switching box.

### 2.2 Edit Satellite

(1). **Satellite:** Press OK to deploy the satellite list, Select the satellite you want to check with pressing ▲▼. You can also press ◀▶ to select the satellite.



(2). **LNB Type**: Select proper LNB type using the arrow keys according to your physical LNB type.

(3). **LNB Freq(1,2)**: Enter the proper LNB frequency referring to your LNB using the numeric keys on the RCU.

(4). **LNB Power**: Select the desired option. If your STB is connected to another receiver through LOOP THROUGH support, you should check which receiver is connected directly to the LNB. In case the other receiver is directly connected to the LNB, then select OFF.

(5). **22K**: 22KHz control is automatically set for each LNB alternative. If "universal" is selected, 22KHz control should be "off state".

(6). **DISEqC**: Select the port number to get the RF signal from the LNB, which is connected, to DiSeqC switching box.

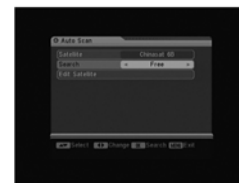
(7). **Positioner**: To set satellite Position.

### 2.3 Delete Satellite



1. Press OK to enter the Delete Satellite menu.
2. Locate the satellite you want to delete, and press OK. The satellite will be marked with the symbol "X".
3. Repeat step 2 with those satellite you want to delete.
4. To confirm the deletion, press EXIT to exit the edition satellite menu. You will see a confirmation message.
5. Pressing the arrow keys select option "OK" and press OK to confirm the deletion, or select Cancel and press OK to cancel screen.

### 2.4 Auto Scan



1. Press OK to enter the Auto Scan menu.
2. Press OK to deploy the satellite list. Select the satellite you want to scan with pressing **▲▼**. The satellite will be marked with the symbol "✓". You can also press **◀▶** to select the satellite.
3. Select the desired mode for searching and then press OK to start search channel automatically.
4. You can also enter the Edit Satellite to reset the current satellite.

### 2.5 NIT Search



1. Press ok to enter the Satellite Search.
2. Press ok to deploy the satellite list. select the satellite you want to search with pressing **▲▼**. The satellite will be marked with the symbol "✓". You can also press **◀▶** to select the satellite.
3. Select TP by pressing **◀▶**, or modify TP Frequency, Symbol Rate and Polarity you want.
4. Select the desired mode for searching and then press ok to start searching automatically.
5. You can also enter the Edit Satellite to reset current satellite and enter Add TP to add new TP or enter Delete TP from the satellite to Delete TP.

### 2.6 Satellite Search



1. Press ok to enter the Satellite Search.
2. Press ok to deploy the satellite list. select the satellite you want to search with pressing **▲▼**. The satellite will be marked with the symbol "✓". You can also press **◀▶** to select the satellite.
3. Select the desired mode for searching and then press ok to start search the prestored TP automatically.
4. You can also enter the Edit Satellite to reset the current satellite.

## 2.7 PID Search



1. Press ok to enter the Satellite Search.
2. Press ok to deploy the satellite list, select the satellite you want to search with pressing **▲▼**. The satellite will be marked with the symbol "✓". You can also press **◀▶** to select the satellite.
3. Select the desired TP and input Video PID, Audio PID, PCR PID for searching and then press ok to start search automatically.
4. You can also enter the Edit Satellite to reset the current satellite.

## 3. System

### 3.1 Language



Select the desired language for menu.

### 3.2 TV System



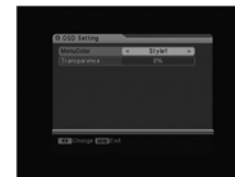
You can set the TV type by pressing the arrow keys. If the source program is PAL, TV set PAL, source program is NTSC, TV set NTSC.

### 3.3 Auto Shut Down



To set the time for stopping work automatically.

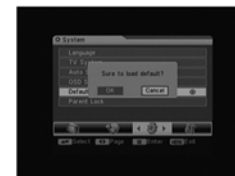
### 3.4 OSD Setting



Menu Color: Allows you to select the desired color for menu.

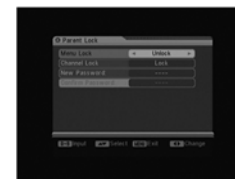
Transparence: You can adjust the transparency level by using the arrow keys. From 0% to 80%.

### 3.5 Default Value



This option allows you to restore the parameters to the original state. Be careful when you use this option, because you can lose data.

### 3.6 Parent Lock



This function allows you to lock the channel with a password in order to prevent children from accessing the channel. You can also protect your installed data and information using the Install Lock. If the STB Panel Lock item is set to OFF, the keys of the front panel is invalidation. The default password is 0000. When the correct password is entered, the selected menu opens automatically.

## 4. Tools

### 4.1 Information



You can get the information of the current channel from here.

### 4.2 Satellite Guide



1. Local Longitude: Enter the correct value of local longitude.
2. Local Latitude: Enter the correct value of local latitude.
3. Satellite Longitude: Enter the longitude of the current satellite.
4. Start: Press OK, the orientation and elevation of the antenna will be display on the screen.

### 4.3 Software Upgrade



By this function, you can upgrade software via DB9.

Upgrade Mode: Select the desired upgrade mode from code, logo, program list and all.

Start upgrade: After you press OK key, STB will reboot for upgrade.

## TECHNICAL SPECIFICATION

TUNER	
Input Frequency	950 to 2150 MHz
Input Level	-65 to - 25 dBm
LNB Supply	13V / 18V / OFF, max 400 mA
Demodulation Type	QPSK
Symbol Rate	4 ~ 45 MS/s
AUDIO/VIDEO PROCESSING	
Audio Standard	ISO/IEC 13818-3
Audio Channel	Mute, Left, Right and Stereo
Audio Decoding	MPEG-1 & MPEG-2 layer I and II
Video Standard	ISO/IEC 13818-2, MPEG-2 MP@ML
Aspect Ratio	4:3
Video Resolution	720 x 576 (PAL), 720 x 480 (NTSC)
Video format	4:3
POWER SUPPLY	
Type	Switching mode
Input voltage	90-265V, 50/60Hz
Power consumption	12W max
PHYSICAL CHARACTERISTICS	
Rear Panel	1 LNB Input (2F-type)
Connectors	2 x Audio L/R (RCA) 1 x Video SIGNAL (RCA) 1 x RS-232 (9-pin D-sub male)



## FCC Warning Statement

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 or 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.