



### Graphical Symbol



The Lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### Outdoor Use Warning Marking

"WARNING - TO REDUCE OR SHOCK HAZARD. DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

### Polarized Attachment Plug Marking

"CAUTION : To prevent electric shock, match wide blade of plug to wide slot, full inset."

Note : This equipment has been tested and found to comply with the limit 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. If this equipment does 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 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.

Change or modification not expressly approved by the party responsible for Compliance could void the user's authority to operate the equipment.

## Safety Instructions

1. Read Instructions : All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions : The safety and operating instruction should be retained for future reference.
3. Read Warnings : All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions : All operation and use instructions should be followed.
5. Cleaning : Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaner. Use a damp cloth for cleaning. Exception : A product that is meant for uninterrupted service and that for some specific reason, such as the possibility of the loss of and authorization code for a CATV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the product in the cleaning description otherwise required in this article.
6. Attachment : Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture : Do not use the product near water for example, near a bath washbowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories : Do not place this product on an unstable cart, stand, tripod, bracket or table. This product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or tape recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surface may cause the product and cart combination to overturn.
10. Ventilation - Slot and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating and these openings must not be blocked by covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources : This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home,

13. Power-Cord Protection : Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

14. Protective Attachment Plug : The product is equipped with an attachment plug having overload protection. This is a safety feature. See instruction Manual for replacement or resetting of protective device. If replacement plug specified by the manufacturer that has the same overload protection as the original plug.

15. Outdoor Antenna Grounding : If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electric Code, ANSI/NFPA 70, provides information with regards. Please refer to picture 2 in the end of this chapter.

16. Lighting : For added protection for this product during a lighting storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lighting and power-line surges.

17. Power Lines : An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits. Or where it can fall into such power lines or circuits.

When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

18. Overloading : Do not overload wall outlets. Extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

19. Object and liquid Entry : Never push objects of any kind into this product through opening as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

Never spill liquid of any kind on the product.

20. Servicing : Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

21. Damage Requiring Service : Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power-supply cord or plug is damaged
- b) If liquid has been spilled, or objects have fallen into the product.
- c) If the product has been exposed to rain or water.
- d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e) If the product has been dropped or damaged in any way.
- f) When the product exhibits a distinct change in performance-this indicate a need for service.

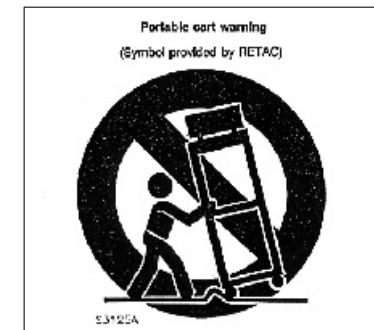
22. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety Check : Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

24. Wall or Ceiling Mounting : The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

25. Heat : The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifier) that produce heat.



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## 1.1 Features

### <Common Part>

- Easy Graphic MENU Interface
- RS232C Port for Updating Control Software and Additional Service
- Supports DiSEqC1.0/1.2, 0/12V, 13/18V, 0/22KHz Tone
- 2-SCART Connectors & 1-RCA Connector
- Multi-Language Function(Menu, Audio)
- Last Channel Memory
- OSD : Transparency & Blending, 256 Palette Colors
- Front Panel Buttons & IR Remote Controller User Interface
- Editing Functions(TV or Radio Channel, Channel Name, Favorite Name Satellite Name)
- EPG for OnScreen Channel Information
- Channels Memory for Multi-satellite(up to 64)
- 3 Operation Modes(Digital TV, Digital Radio, Favorite)
- PLL RF Modulator UHF21-69 with PAL-G/I/K(optional)

### <Digital Part>

- Receives QPSK Satellite Broadcasting RF Signal and Decodes the Digitally Encoded Signal
- Digital Tuner with Loop-through out
- SCPC/MCPC Receivable from C/KU-band Satellite.
- MPEG-2 Main Profile at Main Level
- Teletext Supported Through VBI & OSD
- 4800 Channels Memory

### <Irdeto Embedded>

- 1 Slot Smart Card

## 1.2 Accessories

- User's Manual
- Remote Control Unit
- Batteries

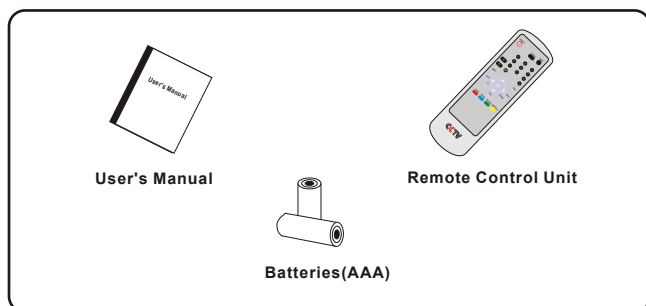


Figure 1. Accessories



**Warning** Please don't recharge, disassemble, electric short, and mix with used or other battery types

## 2.1 Front Panel

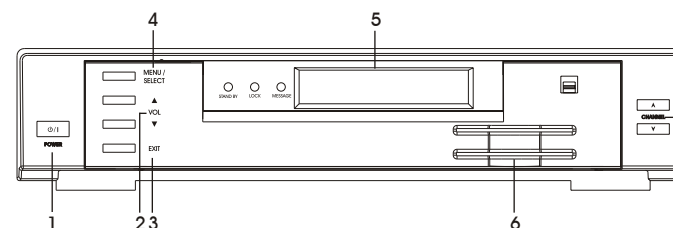


Figure 2. Front Panel

### 1. Power Button

Turns the receiver On/Off.

### 2. Volume UP/DOWN Button

Increases/decreases the volume levels in No-menu state. Change the setting values in specific Menu item.

### 3. Exit Button

Exits from the current menu or cancels the current progressing operation if applicable.

### 4. Menu/Select Button

Shows the System set-up menu in No-menu state. Activates the highlighted menu item in Menu state.

### 5. Display

The yellow led is the standby indicator and red led is lock indicator.  
The green led indicates that mail or announcement message have arrived.

### 6. SMART CARD Slot(Irdeto Model Only)

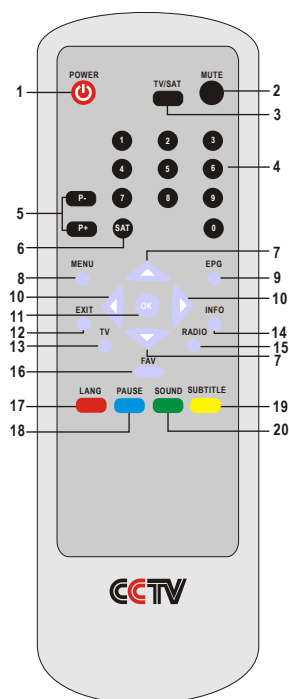
Insert smart card into smart card slot for conditional access.

### 7. Channel UP/DOWN Button

Moves the cursor up/down in Menu state. Changes the current program to the previous/next program in No-menu state.

## 2.2 Remote Control Unit

All features of the set-top box can be controlled with the remote controller.



### 1. POWER

Turns the receiver On/Off.

### 2. MUTE

Mutes audio output of the receiver.

### 3. TV/SAT

Control RF modulator output to receiver output or ANT input of RF modulator. Whenever TV/SAT button is pressed RF modulator output(TV/VCR) is changed to receiver video/audio output or bypass ANT input signal.

### 4. NUMERIC KEY(0-9)

Controls the numerical operation and especially changes program directly.

### 5. P-/P+

Recall previous channel in No-menu state. Page up and down in menu list.

### 6. SAT

Shows satellites list of the searched channels, change current satellite.

### 7. UP/DOWN

Change the current program to the previous/next program in NO-menu state.  
Moves the cursor to upward/downward in Menu state.

### 8. MENU

Shows the menu or sub-menu and cancels the processing function if applicable.

### 9. EPG

View the program guide in No-menu state.

### 10. LEFT/RIGHT

Increases/decreases the volume level in No-menu state. Change the setting value in specific Menu item.

### 11. OK

Activates the highlighted menu item. Display channel list according to TV/Radio Mode

### 12. EXIT

Exits from the menu or sub-menu and cancels the progressing function if applicable.

### 13. TV

Shows the current digital TV program list.

### 14. INFO

Used for special function. Normally used for viewing channel information.

### 15. RADIO

Shows the current digital Radio program list.

### 16. FAV

Shows the current favorite program list.

### 17. LANG

Shows the list of the audio language available in the current channel.

### 18. PAUSE

Pause the video/audio output.

### 19. SUBTITLE

Shows the list of subtitle languages the current channel supports.

### 20. SOUND

Select sound mode to stereo or mono.

## 2.3 Rear Panel

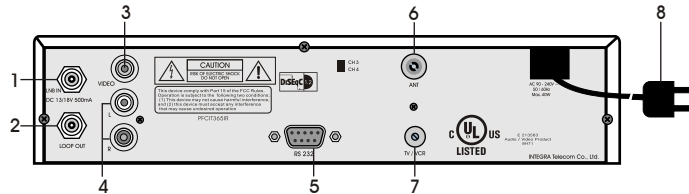


Figure 3. RearPanel

### 1. LNB IN

Connect the digital signal from your LNB of your satellite dish to this connector.

### 2. LOOP OUT

Gives you the possibility to connect an extra receiver (analogue or digital).

### 3. VIDEO (Yellow RCA)

This connector has a constant video signal for additional VCR-connections.

### 4. AUDIO Right (Red RCA) and Left (White RCA)

These connectors give you the possibility to connect the audio signal to an external amplifier, or the audio input of your TV.

### 5. RS232 Serial Port

This serial port can be used to connect your PC to your receiver, and enables you to download new versions of software into your receiver.

### 6. ANT

RF Modulator (female part). If you have an additional antenna (cable or terrestrial) as well, and you do not use a scart cable to connect the receiver to the TV, then your additional antenna has to be connected here.

If you do use a scart cable to connect the receiver to your TV, the additional antenna can be put directly into your TV.

### 7. TV/VCR

RF Modulator (male part). If you do not use a scart cable to connect your receiver to your TV, you will have to use this connector to connect the receiver to your TV, using a coax cable. If you connect your receiver to your TV like this, be sure that you set your TV to the Video channel.

### 8. Power Cord

Your receiver requires a current of 90~240V AC (Auto-selectable), 50~60Hz +/-5%.

Make sure to check the power specification before connecting your receiver to the wall outlet.

## 3.1 Connecting to TV & VCR

### <Basic connection with a coax cable>

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV/VCR connector at the back of the receiver to the coax IN connector on your TV set.
3. Optional : connect an extra terrestrial or cable antenna to the ANT connector at the back of the receiver.

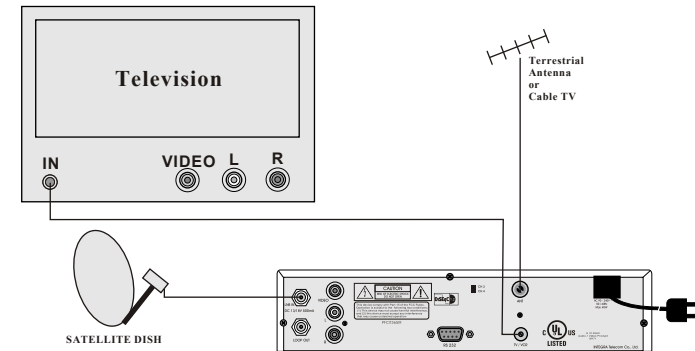


Figure 4 Basic connection with a coax cable

### <Connecting to TV>

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the RCA connector at the back of the receiver to the RCA-in connector on your TV set.

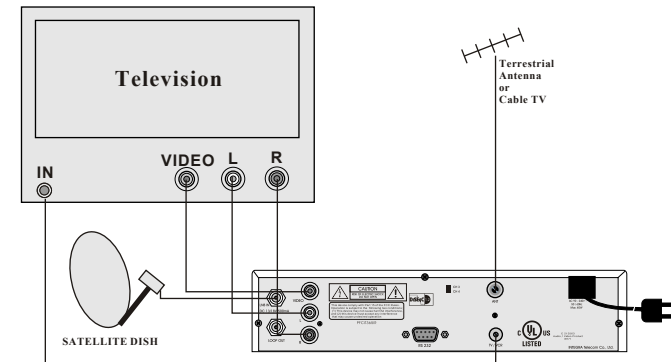


Figure 5 Connecting to TV

### 3.2 Connecting to Dish

Aiming a satellite dish and LNB to the correct longitude and Azimut (angle of elevation) of a satellite is a specialist job, and can best be done by an official Integra dealer.

#### <Connecting a fixed satellite dish to your receiver>

Make your choice of which satellite you want to receive your signals from, and have your Integra dealer aim your dish at the requested satellite. Connect a coax cable to your LNB and the other end directly to the LNB IN connector of your receiver.

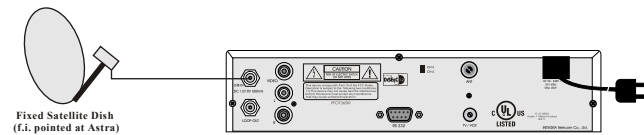


Figure 6. Connecting a fixed satellite dish to your receiver

#### <Connecting multiple fixed dishes to your receiver using a DiSEqC 1.0 switch>

If you want to watch programmes from more than satellites (For instance from Astra and from Hot Bird) it is advisable to use fixed dishes and a DiSEqC 1.0 switch. Have your Integra Dealer aim the dishes at the requested satellites and connect the LNB's with coax cables to the IN connectors of the DiSEqC 1.0 switch. Connect the OUT connector of the DiSEqC 1.0 switch to the LNB IN connector at the back of your receiver.

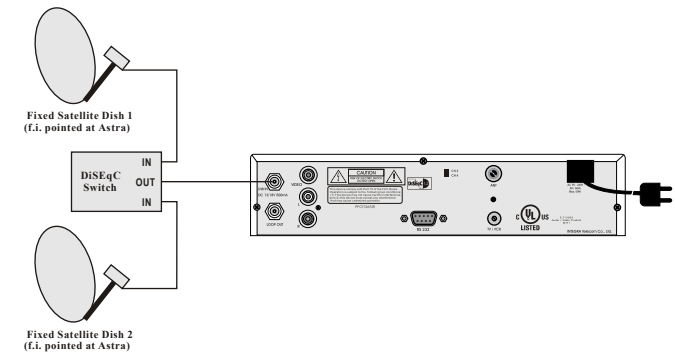


Figure 7. Connecting multiple fixed dishes to your receiver using a DiSEqC 1.0 switch

## &lt;Connecting a dish on a motorized positioner to your receiver&gt;

An other possibility to watch programmes from multiple satellites is by mounting a dish to a motorized DiSEqC 1.2 positioner.

Have your Integra dealer mount the dish to the positioner, set the correct azimuth (angle of elevation) and let him set the centerpoint for your positioner. Connect the LNB with a coax cable to the LNB IN connector of the positioner, and connect the OUT connector of the positioner to the LNB IN connector at the back of your receiver.

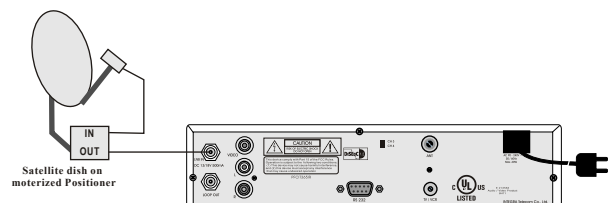


Figure 8. Connecting a dish on a motorized positioner to your receiver

## 3.3 Connecting to SMART CARD (Irdeto Model Only)

Insert Smart Card into Smart Card slot for watching TV programmes from Service Provider.

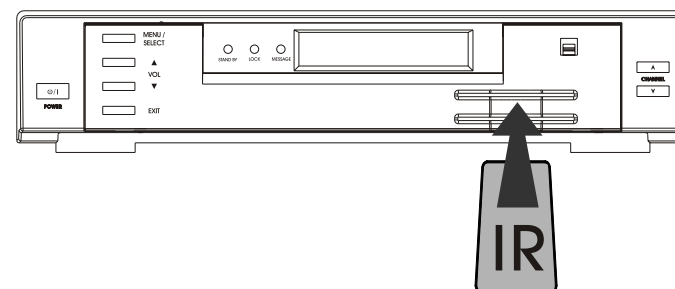
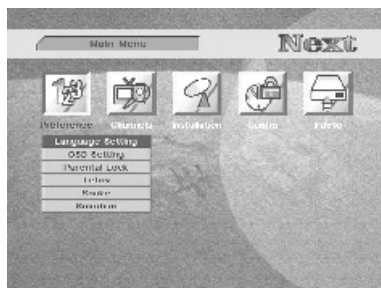


Figure 9. Connecting to SMART CARD

## 4.1 Before Settings

### <Starting up for the First Time>

1. Turn on your TV and receiver.
2. If it is first time using a receiver, you should set parameters for system configuration. After displaying the login screen, press the **MENU** button. The **<Screen 1>** will be appeared.



<screen 1>

### <Menu Information>

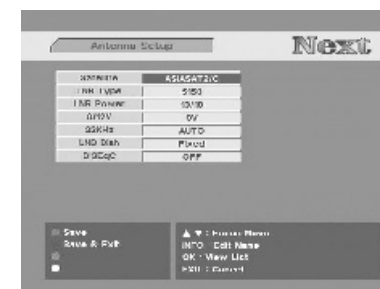
The menu consists of main-menu and sub-menu, as you see in the **<Screen 1>**. Main-menu has 5 items and each main-item has its sub-menu items.

## 4.2 Basic Settings

### <Antenna Setup>

With this menu, you can designate the satellite to search channels. There are up to 64 satellites available. In this menu, you can edit the satellite name.

1. If you press **OK** in Antenna Setup of Installation Menu, the **<screen 3>** will be appeared.
2. Use the **Up/Down** button to select the item, and set up the parameter with the **Left/Right** button.
3. If you completed setting, use Red button to Save, Green button to Save/Exit.



<screen 2>

**Satellite** : If you press **OK** in satellite, the satellites list is displayed. Move the cursor to a satellite and press **OK** to select the satellite and have the list disappeared, or press **EXIT** on the remote controller to cancel the setting and have the list disappeared.  
If you want to rename the satellite, press the **INFO** button on the remote controller at the satellites list. (see 4.9 Name Edit)

**LNB Type** : You can select one of the LNB type from Universal (9750~10600), 5150, 9750, 10000, 10050, 10600, 10750, 11200, 11475, or user defined type. You should input LNB value directly in user defined (default value is 0).

**LNB Power** : You can select 13V or 18V for LNB. Select Off if you want to off LNB power.

**0/12V** : Setup the 0/12V switch option.

**22KHz** : Setup the 22KHz switch.

If you have connected to a dual LNB or two antennas connected to a 22KHz tone switch box, set it to "ON".

**LNB Dish** : Use this option to use the Digital Positioner. The default is Fixed. If you want to move the dish, set the LNB Dish field to Moved.

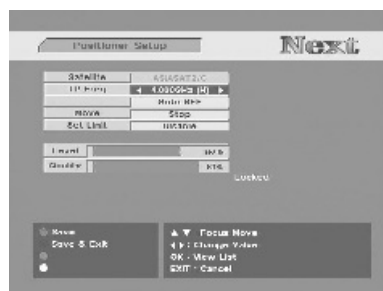
**DiSEqC switch** : The default is Off. To use the DiSEqC switch, set up DiSEqC.

**Tips**

If you had set LNB Type to Universal, LNB Power and 22KHz switch options are disregarded. If you set LNB Dish to Moved, DiSEqC switch is disappeared and positioner item is appeared. On the other hand, if you set LNB Dish to Fixed, positioner item is disappeared and DiSEqC switch is appeared.  
Universal LNB : 9750 ~ 10600MHz

**<Positioner Setup>**

If you use DiSEqC digital positioner you can set dish position from Antenna Setup menu. First, change "LNB Dish" value to Moved then DiSEqC menu item is changed to Positioner item. If you already set dish position for current satellite item value is displayed as "Setup(SET)". To set dish position press **OK** button. Positioner menu will be displayed.



&lt;screen 3&gt;

**Satellite** : Show the satellite name dish position is set. If you want to change satellite you should change satellite from Antenna Menu.

**Tp Freq** : Show TP of the designated satellite. Signal level and quality is checked on the base of current TP value. If you want to change to other TP use **Left/Right** button or **OK** button, then TP list will be displayed.

**Goto REF** : You can use this item to move dish position to center. If you press **OK** button dish position is moved to center position. While position is moving to center, wait message is displayed.

**Move** : Use to move dish position to east or west direction. Whenever **Left** button is pressed dish position is moved to east direction. And moved to west direction when **Right** button is pressed.

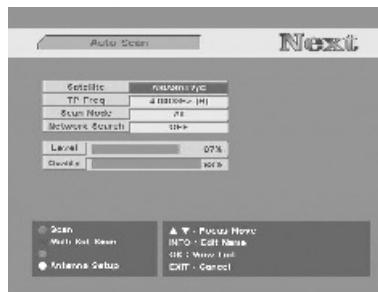
**Set Limit** : Set dish position's east or west limit, disable limit value. Change item with **Left/Right** button and press **OK** button to set/disable limit value.

If dish position is moved to correct position to receive satellite signal, signal level and quality color are changed (for example to Green). To save current dish position use **Red(Save)** or **Green(Save & Exit)** button.

**<Auto Scan>**

If you already set the Antenna setup you can scan the satellite. In this menu, you can edit the satellite name and select TP Freq, Scan Mode, Network search.

1. If you press **OK** in Auto Scan of Installation Menu, the **<screen 5>** will be appeared.
2. Use the **Up/Down** button to select the item, and set up the parameter with the **Left/Right** button.
3. If you completed setting, use Red button to Scan, use Green button to Multi sat scan, Blue button to go to Antenna Set-up menu.

**<screen 4>**

**Satellite** : You can select other satellite to scan channels using **Left/Right** or satellite list (If you press **OK** button, then satellite list will be displayed).

**TP Freq** : Shows a TP value of the current satellite. If you want to see another TP value press **OK** for TP list or press **Left/Right** to change TP.

**Scan Mode** : You can designate scanned channel type as FTA channel only or All channels (FTA + Scrambled channel).

**Network Search** : Set this field to ON to perform Network TP Search.

If you press Red (Scan) button all transponders of current satellite are scanned.

**<Manual Scan>**

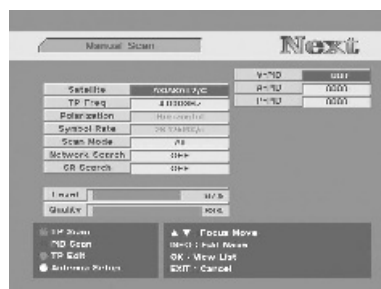
1. If you press **OK** in Manual Scan of Installation Menu, the **<screen 6>** will be appeared.
2. Use the **Up/Down** button to select the item, and set up the parameter with the **Left/Right** button.
3. If you completed setting use Red (TP Scan) button to scan current transponder channel, Green button to enter PID scan mode, Yellow button to edit TP information, Blue button to go to Antenna Setup menu.

**<screen 5>**

**TP Scan** : Searches channels from a specific transponder.

**PID Scan** : You can search a specific channel by entering the PID value of a channel.

If you press Green(PID) button, the PID screen is displayed as below.  
Enter the PID value and press the PID button again. (To cancel the PID value, press Exit on the remote controller, or press the Green(PID) button to search the channel. You should enter V-PID, A-PID, and P-PID).



&lt;screen 6&gt;

**TP Edit:** If you press Yellow button You can edit the TP value. Press **OK** in the Add item to add the new TP value, in the Modify item to change the current value, in the Delete item to delete the current TP value.



&lt;screen 7&gt;

### <Timer Setting>

You can set the time to make the receiver perform the designated actions including timer based recording(VCR), wake up/sleep the set-top-box.

1. If you press **OK** in Timer Setting of Installation Menu, the **<screen 9>** will be appeared.



&lt;screen 8&gt;

You can see the current setting state of all timers.

2. Use the **Up/Down** button to select the timer, and press **OK** button to setup selected timer information. Following screen will be displayed.



&lt;screen 9&gt;

Use the **Up/Down** button to select the item, and change the parameters using **Left/Right** button. If you completed timer settings, use Red(Save) or Green(Save&Exit) button to save timer setting.

**Timer Number:** You can select up to 8 timers.

**Timer State:** You can make this state Enabled to use the timer function.

**Timer Cycle:** You can set the cycle of the action designated in the timer mode.

**Timer Service:** You can set the service (Sleep, Wakeup, VCR Record) of the action designated in the timer mode.

**Date :** You can set the starting date of the timer action. If you press **OK**, calendar is displayed.

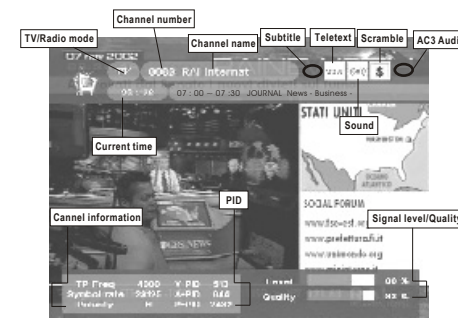
**Start Time(sleep time/wakeup time) :** You can set the starting time of the timer action.

**Ending Time :** You can set the ending time of the recording when the Timer mode is VCR Record.

**Channel :** You can select the program channel viewed when receiver is powered on by the wakeup timer function.

### 4.3 TV menu at the normal mode(No menu state)

At normal mode, various menus are displayed on the screen with remote control action. You can change the current status and mode with various buttons including the **Up/Down, SAT, INFO** and **EPG** button. **<Screen 10>** shows the banner displayed when you press the **INFO** button. If you press the button again before the banner disappears, detail banner is displayed. The detail banner shows detailed information on the current channel.



<screen 10>

- **MUTE** : Mutes the current channel audio.
- **POWER** : Turns the receiver power on/off.
- **SOUND** : Sets the current channel audio to stereo/left-mono/right-mono.
- **TV/RADIO** : Changes the current mode. If you press the **Radio** button at TV mode, the system changes into the Radio mode, and if you press the **TV** button at Radio mode, the system changes into the TV mode. And if you press the **TV** button at the TV mode, or the **Radio** button at the Radio mode, the TV/Radio list menus are displayed. (The menus are the same as those of Channel Manager, but are not available to edit. To edit, use the Channel Manager of the Main menu.)
- **SAT** : The current TV/Radio list is for the channels searched in a satellite. If you change the satellite with the **SAT** button, the list is updated with the channels searched in the satellite. (The channel list is configured with the channels searched in a satellite. If you set up the digital positioner to change the satellite, a message wait moving dish is displayed. The **SAT** button is disabled in the favorite channel mode because there can be a number of different satellites.)

- **Numeric Key(0-9)** : You can change channel by inputting channel number directly.
- **Up/Down** : Moves to the previous/next channel.
- **Left/Right** : Adjusts volume.
- **LANG** : Shows the list of the audio language available in the current channel.  
(The selected audio language information is saved and applied when you watch the channel.)
- **FAV** : The Favorite List is displayed.
- **MENU** : You can enter the Main Menu.
- **OK** : You can select an item in the SAT, SUBTITLE or LANG list. Program list is displayed according to TV/Radio Mode.
- **EXIT** : The button makes a banner or other lists including SAT, SUBTITLE and LANG disappeared.
- **EPG** : The EPG menu of the current TP is displayed.
- **TEXT** : Shows the list of subtitle languages the current channel supports.
- **PAUSE** : Pause the video/audio output of receiver, To clear pause press **PAUSE** button again.
- **INFO** : Press the **INFO** button once to display short and extended information. If you press the button again before the banner disappears, a new banner will be displayed showing the details of the current channel.
- **RECALL** : Shows previous channel.

**Tips**

TV/Radio/Favorite List is classified into the Simple mode and the Edit mode. If you press TV/Radio/Fav at Normal, the Simple mode menu is displayed. The simple mode provides fast channel move and fast display of basic information, but does not provide the Edit function. If you want to edit, select Channels Manager and Favorites Manager of Main Menu at Normal status.  
The TV/Radio/Favorite menu displayed in this section is the Simple mode. To use edit function, see 4.5 Channel Manager and 4.7 Favorites Manager.

**<TV/Radio List in Simple mode>**

If you press TV/RADIO/OK on the remote controller, at No menu state, the screen is displayed as follows.

You can preview the channel and move the channel fast with the **P+/P-** button.



&lt;screen 11&gt;

**<Favorite List in Simple mode>**

If you press FAV on the remote controller at No menu state, the screen is displayed as follows.

You can preview the channel and move the channel fast with the **P+/P-** button.



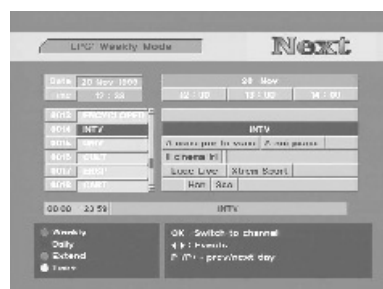
&lt;screen 12&gt;

## 4.4 EPG

EPG shows the event information on the current TP channel by time zone. EPG is divided into Weekly mode, Daily mode, and Extend mode, and provides timer based recording and automatic power ON/OFF. The event is displayed only at the channel that have EPG information. If you press **EPG**, the Weekly mode is displayed as a default.

### Weekly

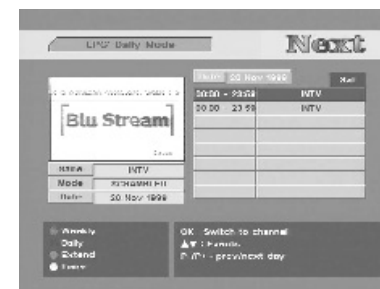
The current TP channel list is displayed on the left, and the event information is displayed on the right by time zone. To view the detailed information of an event in the Extend mode, press Yellow(Extend) with the Left/Right/Up/Down key. If you want to display the Daily mode of the current channel, press Green(Daily). Press **EXIT** to close the EPG menu.



<screen 13>

### Daily

Shows the designated channel in PIG, and displays the channel event in detail. If you press Yellow(Extend), an Extend window is displayed as in the Weekly mode, showing detailed information of the event. Press **EXIT** to close the EPG menu.



<screen 14>

### Extend

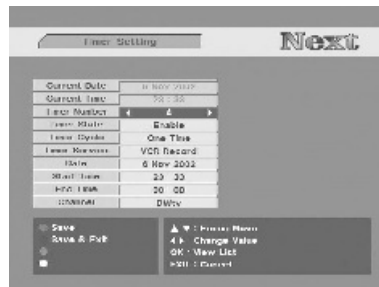
Shows the detailed information of the current event. To close the mode, press **EXIT** on the remote controller.



<screen 15>

## Timer

Move the cursor to an event in the required time zone, and press Blue(Timer). Then the timer is set to the designated time. See the Timer Settings for details.



&lt;screen 16&gt;

## 4.5 Channel Manager(Edit Mode)

You can change channel information in the "Channel Manager" of Main Menu. Use **TV/Radio** button to view TV/Radio channel list. Use **SAT** button to view other satellite's channel list.



&lt;screen 17&gt;

## Sort

You can sort channel orders of channel list. Use the 'Sort' button.



&lt;screen 18&gt;

**Name** : Sort channel order by channel name. Use the 'Name' button.

**Type** : Sort channel order by channel status. Free and Scrambled.

**Tp** : Sort channel orders by transponder order.

**Manual** : You can move a channel position.

First use the 'Manual' button. Then the color of the selected channel name will be changed. Use the cursor move buttons to move to the position that you want. Use the 'Manual' button again.

**EDIT**

You can change a channel name or PID and delete one or all channels on the current satellite channellist.

Be aware that the function can completely delete the saved channels.

When you delete a channel in Channel Manager, the channel is also deleted from the Favorite List.



&lt;screen 19&gt;

**Delete One** : You can delete current selected channel only. Use 'Del One' button

**Delete All** : You can delete current list's all channel. Use 'Del All' button.

**Edit Channel Name** : You can edit current channel name. Press 'Edit Channel Name' button (Yellow). Edit window will be displayed.

**Edit Channel PID** : You can edit channel PID information. Use 'Edit Channel PID' button (Blue). Channel PID edit menu will be displayed. (The changed PID value can be disregarded if the PID information is updated from satellite.)

**LOCK**

If channel lock status is enabled, you must enter PIN code to view channel.



&lt;screen 20&gt;

**SKIP**

If channel skip status is enabled, channel cannot be viewed on a channel view operation.

## 4.6 Add Favorites

You can designate the channels of the current TV/Radio list as the favorite channels.



<screen 21>

The default favorite list names are "Movie", "News", "Sports", "Music". Move to the required channel with **Up/Down** or **P+/P-** button, and then press color button on the remote controller to set channel as favorites. For example, if you press Red (Movie) button the channel is designated as 'Movie' favorite channel. If Red button is pressed again the selected channel is un-selected from "Movie" favorite list. One channel can be selected into more than one favorite list. You can change default favorite list name from Favorite Manager menu. To select Radio channel in the TV list use **Radio** button, and use **TV** button in the Radio channel list. You can see the favorite list if you press the 'Fav' button while you are watching TV (or listening Radio channel) in Normal State.

## 4.7 Favorite Manager

The function is basically the same as the channel manager menu in 4.5.



<screen 22>

- **Sort** : Same as the Sort function of channel manager menu in 4.5.
- **Edit** : Same as the Edit function of channel manager menu in 4.5.
- **Lock** : Same as the Lock function of channel manager menu in 4.5.
- **Fav Group Name** : You can edit the name of the favorite group. (see 4.9 Name Edit)

## 4.8 Other Settings

The Preference menu has following 5 sub-menu.

- Language Setting
- Parental Lock
- Tetris
- Snake
- Sokoban

And The Config menu has following 4 sub-menu.

- TV Setting
- Time Setting
- Clear Data
- OTA Download

### <Language Setting>

You can select OSD menu language, Audio language and subtitle language. Use the **Right** or **OK** button to view language list.



<screen 23>

### <OSD Setting>



<screen 24>

### <Parental Lock>

Changes the Personal Identification Number(PIN) which is used to control the access to the receiver and individual channel.



<screen 25>

#### - Menu Lock/UnLock

If menu is set to Unlock, the receiver doesn't ask to input your PIN in the menu operation. Use the **Left/Right** button to change menu lock status. If the lock key message is inconvenient, set the key to UnLock.

#### - Change PIN

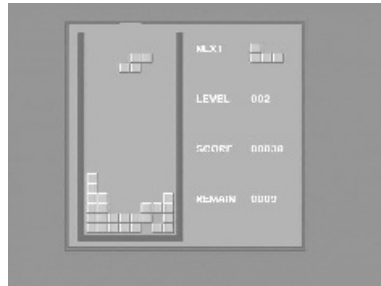
To change the current PIN, First you can input the current PIN and then input new PIN you want to use and then confirm this new PIN. After changing, you must save the PIN configuration using the Save button.

## Setting and Operations

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### <Tetris>

If you want to play game, Select the Preference item and use the tetris button.

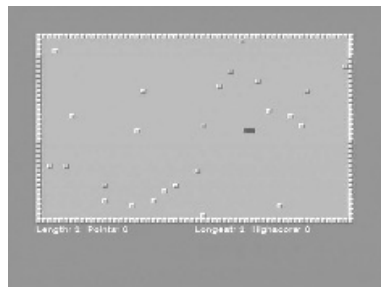


<screen 26>

- **Left/Right button**: Move block to a left or right direction
- **Down button**: Drop block
- **OK**: Rotate block

If you want to stop the game, use the **EXIT** button.

### <Snake>



<screen 27>

- **Left/Right button**: Move snake icon to left or right direction.
- **Up/Down button**: Move snake icon to up or down direction.

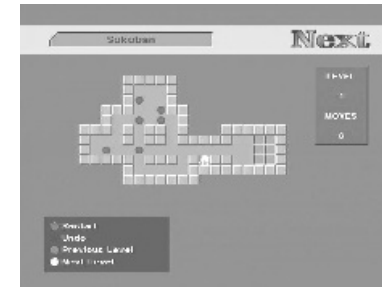
If Blue snake icon is passed through the Yellow icon length is increased, but passed through the Green icon length is decreased.  
If passed through Gray icon current game mode is ended.

## Setting and Operations

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### <Sokoban>

You are the sokoban and you have to push the balls to their correct positions (SKYBLUE square). The balls can only be pushed, never pulled, so you have to be careful not to push them into a corner where you can't get them out again. You can only push one ball at the time.



<screen 28>

You can move around by using the arrow keys.  
You can restart level by using color key (RED).  
You can use undo function by using color key (GREEN) for moving cancel (Only one step).  
You can go to previous or next level (between completed level) by using color key (YELLOW, BLUE)

## &lt;TV Setting&gt;



&lt;screen 29&gt;

**- TV Mode**

You can select OSD & video display mode to one of Multi, PAL, NTSC. When PAL mode is selected, for example All screen is displayed as the PAL mode in spite of the current Programs transmission mode.

**- Video output**

You can change the SCART output signal into Composite (CVBS) or RGB color composition.

**- Screen Mode**

When program transmission is in 16:9 and you have a TV set with the 4:3 picture format you can select Fullscreen or LetterBox picture format.

**- S/PDIF Output**

Enable or Disable S/PDIF optical audio output. You must connect device that decode optical audio output signal.

**- UHF Mode**

If TV is connected by RF cable, you can select the RF modulator type. RF modulator type affects a programs audio.

**- UHF Channel**

When TV is connected by RF cable, you must select RF channel number to the same value on the TV. If other number is selected the picture will not be viewed.

## &lt;Time Setting&gt;

If a broadcaster provides GMT, you can set the time using GMT, or set your own time by yourself. If the GMT usage is on, Current time is automatically set and you can only set the time zone. If you set GMT Usage to OFF, "Set Data" and "Set Time" item are displayed. To set date value press **OK** button on the item then calendar window is displayed. You can select date from calendar. To set time value move cursor to time item and use numeric button on the remote controller.



&lt;screen 30&gt;

## &lt;Clear Data&gt;

- **Erase All Channel** : Deletes only the saved channel datas, other setting values are not deleted.
- **Factory Default** : Deletes all the data currently saved and set and returns the system to the initial status.



&lt;screen 31&gt;

## &lt;Irdeto&gt;

## - IRD Status

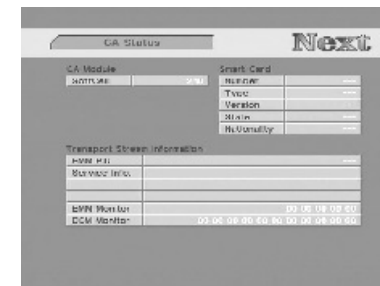
The IRD status displays technical information about the IRD, CA, Smart Card and software loaded into it.



&lt;screen 32&gt;

## - CA Status

CA status displays. Smart Card EMM/ECM information.



&lt;screen 33&gt;

## - Loader Status

Loader status displays information about the IRD, and software loaded into it.



<screen 34>

## - IRD Message

The user can read the messages sent to the individual decoders. We can save the maximum 5 mail messages, and 5 announcement messages.



<screen 35>

## 4.9 Name Edit

The name editing is the same for each menu. You can change the following names; Channel name, Favorite Group name and Satellite name.



<screen 36>

Use the **Left/Right/Up/Down** button to move keypad cursor to the character you wish to input. After you select a character on keypad press **OK**, then the character in the name box is replaced (or inputted) with the character. To move character input position of the name box, select **Left** or **Right** character on the keypad. If you completed editing move keypad cursor **Save** key and press **OK** button.

## A.1 Trouble Shooting

There may be various reasons for the abnormal operation of the receiver. Check the receiver according to the procedures shown below. If the receiver does not work properly after checking it, please contact the dealer.  
Don't open the receiver cover. It may cause a dangerous situation.

| Symptom                                       | Cause   | Remedy  |
|---|---|---|
| The display on front panel does not light up. | The power cord is not plugged in.   | Check that the power cord is plugged in to the wall outlet.   |
| No picture or sound                           | Wrong connection of the Audio/Video output of the receiver to TV.<br>Audio muting.<br>TV power off.                         | Connect the Audio/Video output of the receiver to TV correctly.<br><br>Press the MUTE button.<br>Turn TV on.  |
| No picture                                    | The receiver can't receive the signal.<br><br>Incorrect values of some tuner parameters.<br><br>Wrong direction of the dish | Check the antenna cable, replace the cable, or connect the cable to the receiver tightly.<br>Set the values of tuner parameters correctly in Installation menu.<br>Check the signal strength with a spectrum analyzer and adjust your dish correctly. |
| The remote controller does not working        | The batteries of the remote controller are not inserted or exhausted  | Check whether the batteries are inserted correctly in your remote controller.<br>Check the batteries, and if exhausted, replace the batteries of the remote controller.   |

## A.2 Specifications

### 1. IrDeto Embedded(SmartCard Only)

|                   |   |
|-------------------|---|
| <b>SMART CARD</b> | 1 Slot<br>ISO 7816, gsm11.11 and EMV(Payment Systems) Compatibility |
|-------------------|---|

### 2. Tuner & Channel

#### <Digital Part>

|                   |   |
|-------------------|---|
| Type              | 1X F-type, IEC169-24 Female   |
| Frequency Range   | 950MHz to 2150MHz   |
| Input Impedance   | 75 ohm unbalanced   |
| Signal Level      | -25 to -65 dBm  |
| LNB Power         | 13.5/18.5Vdc $\pm$ 5%, 0.5Amax, Overload protected                          |
| 22kHz Tone        | Frequency:22kHz $\pm$ 2kHz Amplitude:0.6V $\pm$ 0.2V                        |
| DiSEqC Control    | Version1.2 Compatible   |
| Demodulation      | QPSK  |
| Input Symbol Rate | 2-45Ms/s  |
| FEC Decoder       | Convolution Code Rate 1/2, 2/3, 3/4, 5/6 and 7/8 with Constraint Length K=7 |

**3. System & Memory**

|                     |                                  |
|---------------------|----------------------------------|
| Main Processor      | STi5518                          |
| Flash Memory        | 2 Mbytes                         |
| SDRAM               | 8 Mbytes                         |
| EEPROM              | 16 Kbytes                        |
| Channel Memory      | Digital Channel : 4800           |
| Multi-Satellite     | Up to 64                         |
| Multi-Language Menu | English/Arabic/French/Russian    |
| Front               | 7Keys, 4-digit 7-segment Display |
| Remote Controller   | 35keys, IR Remote Control        |

**4. MPEG Transport Stream & A/V Decoding****<Digital Part>**

|                    |   |
|--------------------|---|
| Transport Stream   | MPEG-2 ISO/IEC 13818 Transport Stream Specification |
| Profile Level      | MPEG-2 MP@ML  |
| Input Rate         | Max 60Mbit/s  |
| Aspect Ratio       | 4:3, 16:9   |
| Frame Rate         | 25H for PAL, 30Hz for NTSC                          |
| Video Resolution   | 720 × 576(PAL), 720 × 480(NTSC)                     |
| Teletext           | Through VBI & OSD                                   |
| Audio Decoding     | MPEG/MusiCam Layer I & II, MP3, AC3                 |
| Audio Mode         | Single channel/Dual channel Joint Stereo/Stereo     |
| Frequency Response | 20Hz~20kHz, <+/-2dB<br>60Hz~18kHz <+/-0.5dB         |
| Sampling Rate      | 32, 44.1, 48kHz                                     |

**5. A/V & Data In/Out**

|                |   |
|----------------|---|
| RCA Output     | CVBS, L, R Output (Yellow, White, Red Jack) with Volume Control   |
| Data Interface | RS-232, Bit Rate: 115200 baud<br>Connector : 9pin D-Sub Male type |

**6. RF-Modulator**

|                |                                      |
|----------------|--------------------------------------|
| RF-Connector   | 75Ω F-type, IEC 169-24 Female        |
| Frequency      | CH3(61.25MHz), CH4(67.25MHz)         |
| Output Channel | CH3, CH4                             |
| TV Standard    | PAL G/I/K Selectable by Menu Setting |
| Audio Output   | NTSC                                 |
| Preset Channel | CH4                                  |

**7. Power Supply**

|                   |   |
|-------------------|---|
| Input Voltage     | AC 90~240V, 50Hz~60Hz   |
| Power Consumption | Max. 40W  |
| Stand-by Power    | <= 6.5W   |
| Protection        | Separate Internal Fuse<br>The input shall have the lightning protection |

## 8. Physical Specification

|             |  |
|-------------|--|
| Size(WxHxD) | 280 × 55 × 235mm<br>Excluding the foot. Foot height is 6mm |
| Weight      | 2.0kg  |

## 9. Environmental Condition

|                          |                             |
|--------------------------|-----------------------------|
| Operating Temperature    | 0 °C~40 °C                  |
| Storage Temperature      | -10 °C ~ 50 °C              |
| Operating Humidity Range | 10 ~ 85% RH, Non-condensing |
| Storage Humidity Range   | 5 ~ 90% RH, Non-condensing  |

## A.3 Glossary of Terms

### C band

3.7 ~ 4.2GHz Frequency.

### DiSEqC

Digital Satellite Equipment Control.

### Ku band

11 ~ 18GHz Frequency.

### LNB(Low-Noise Block converter)

The LNB is an electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and converts them to signals that can be used by Satellite receiver.

### PID

Package Identifier.

### PIN Code

Personal Identification Number. A four-digit code that is used for locking/unlocking. e.g. with the parental control feature.

### Polarization

Polarization allows several programmes to be fitted into the same frequency band. The signals from a satellite are transmitted either with linear (vertical or horizontal) polarization or circular (right or left) polarization.

### RS232

Serial data port.