FORTEC STAR®
DIGITAL SATELLITE SYSTEMS

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Lifetime Classic NA(FTA)
FSIR-5400 NA(IR)
Platinum NA(CI)

Free-to-air Digital Satellite Receiver

Récepteur satellite numérique FTA

Safety Instructions

- Please read this User's Manual before starting the operation of the receiver.
- Never open the cover. It is dangerous to touch the inside of the receiver due to possible electric hazard.
- When the receiver is unused for a long time, unplug the power cord from the wall outlet.
- Do not use a damaged power cord as it may cause a fire or an electric shock.
- Do not touch the power cord with wet hands. It may cause an electric shock.
- Place the receiver in a well-ventilated environment. Avoid extreme temperatures.
- When connecting cables, the receiver must be powered off.
- Do not expose the receiver to flames, such as placing a candle on top of the receiver.
- Do not expose the receiver to possible dripping or splashing of liquids. For example, do not place a vase with water in it, on or near the receiver.

How to Use This Manual

This manual provides instructions for installing and using this receiver.
The following symbols are used in the manual:

Warning Indicates warning information.

Tips Indicates any other additional important or helpful information.

MENU
(*Bold Character*) Represents a button on the remote controller or the receiver.
Move to
(Italic Character) Represents a menu item within a window.

IMPORTANT SAFETY INSTRUCTION

- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instruction.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at the receptacle, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

NOTE: 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.

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Before You Begin

1.1 Features

Basic Features:

- Easy-to-use Graphic MENU Interface
- RS232 Port for Updating Software and Additional Services
- Supports DiSEqC1.0/1.2, 13/18V, 22Khz Tone
- S-Video Connector & 3-RCA Connectors
- S/PDIF Connector for AC3 audio pass-through
- Multi-language Functionality (Menu, Audio)
- Last Channel Memory (on the same satellite)
- 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 On Screen Channel Information (where available)
- Channel Memory for Multi-satellites (up to 64)
- 3 Operation Modes (Digital TV, Digital Radio, Favorite)

Digital Features:

- Receives QPSK Satellite Broadcasting RF Signal and Decodes the Digitally Encoded Signal.
- Digital Tuner with Loop-through output
- SCPC/MCPC Receivable from C/KU-band Satellites
- MPEG-2 Main Profile at Main Level
- Teletext Supported Through VBI & OSD
- 4,800 Channel Memory

CI Features: (For CI model only)

- DVB Common Interface (Viaccess, Nagra Vision, Conax, Irdeto, Cryptowrks, ASTON)

Embedded CAS Features: (For embedded CAS model only)

- One Irdeto Embedded slot

1.2 Accessories

- User's Manual
- Remote Control Unit
- Batteries

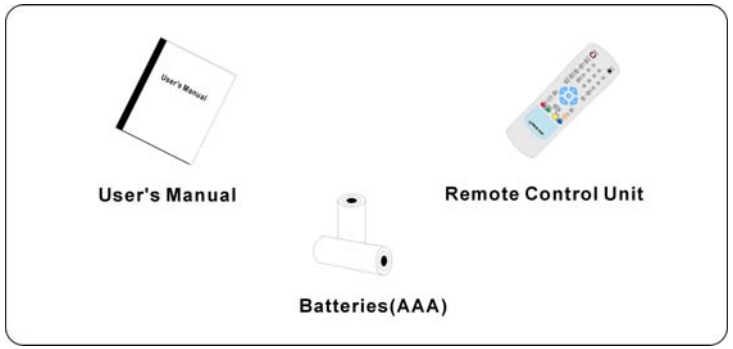


Figure 1. Accessories

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

2. Front Panel

2.1 Front Panel

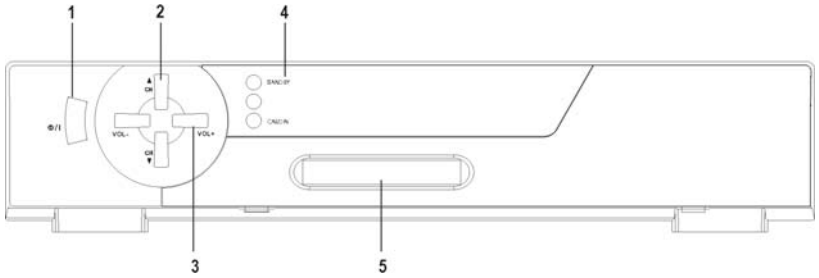


Figure 2. Front Panel

1. Power Button
Turns the receiver On/Off.

2. Channel UP/DOWN Button
Moves the cursor up/down in Menu state. Changes the current program to the next/previous program in the Non-menu state.

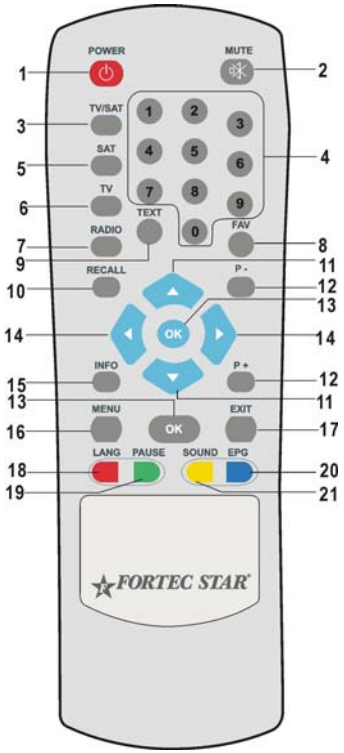
3. Volume -/+ Button
Increases/decreases the volume levels in the Non-menu state. Change the setting values in specific Menu items.

4. Display (4-digit, 7-segment / 3LED)
The 4-digit panel displays channel information. In STAND BY mode, the 7-segment panel displays local time.
The red LED is the STAND BY indicator and the green LED is the CAM-in indicator **(CI Model Only).** The other green LED is the Card-in indicator for CAS models.

5. CI Slot (CI Model Only)
Insert CI module into CI slot for conditional access.
For Embedded CAS models (i.e., Irdeto embedded), the card slot will appear beside the CI slot position.

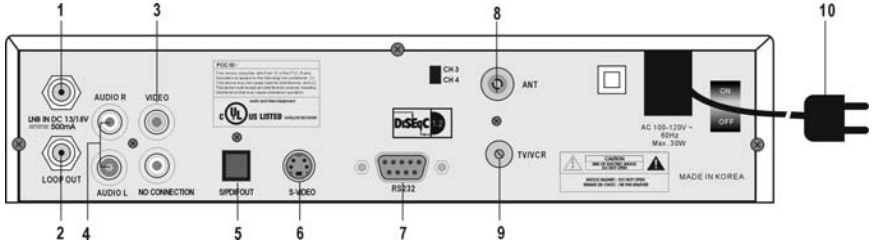
2.2 Remote Control Unit

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
Switches RF modulator output to receiver output or ANT input. Whenever the TV/SAT button is pressed, the RF modulator output is changed to receiver video/audio output or bypass the ANT input signal.
4. NUMERIC KEY(0-9)
Controls the numerical operations, and changes the program channels directly.
5. SAT
Shows the satellite list and the channels downloaded for that satellite.
6. TV
Shows the current digital TV program list.
7. RADIO
Shows the current digital Radio program list.
8. FAV(♥)
Shows the current favorite program list.
9. TEXT
Shows Teletext information for the channel if available.
10. RECALL
Shows previous channel (only on the same satellite).
11. UP/DOWN
Change the current program to the previous/next program in Non-menu state.
Moves the cursor to upward/downward in Menu state.
12. P+/P-
Page up and down in menu list.
13. OK
Activates the highlighted menu item. Or, view the program guide in Non-menu state.
14. LEFT/RIGHT
Change the setting value in certain Menu fields.
15. INFO
Normally used for viewing channel information.
16. MENU
Shows the menu or sub-menu and cancels the processing function if applicable.
17. EXIT
Exits from the menu or sub-menu and cancels the progressing function if applicable.
18. LANG
Shows the list of the audio languages available for the current channel.
19. PAUSE
Pause the video/audio output. (Not a PVR function.)
20. EPG
View the program guide in Non-menu state, if available.
21. SOUND
Select sound mode. (Stereo or mono).

2.3 Rear Panel



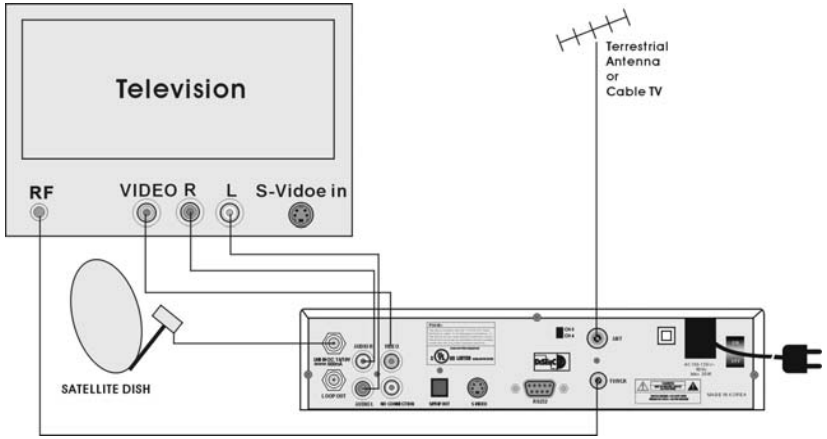
1. LNB IN
Connect the digital signal from your LNB of your satellite dish to this connector.
2. LOOP OUT
Gives you the possibility to connect an extra receiver (analogue or digital).
3. VIDEO (Yellow RCA)
This connector has a constant video signal for additional VCR-connections, or to the TV.
4. AUDIO Right (Red RCA) and Left (White RCA)
These connectors give you the possibility to connect the audio signal to an external amplifier, or to the audio inputs of your TV.
5. S/PDIF (AC3 Dolby Digital Pass-through)
Used to connect a digital audio amplifier to your receiver using a Toslink cable.
6. S-VIDEO
Provide better picture quality than above video out (yellow RCA).
If your general TV (analog TV) has S-VIDEO capability, use this jack along with the Audio RCA jacks to connect the receiver to your TV.
7. RS232 Serial Port
This serial port can be used to connect your PC to your receiver, which enables you to download new versions of software into your receiver. (Note: Changing the software voids the manufacturing warranty.)
8. ANT
If you have an additional antenna (cable or terrestrial), it can be connected here. This allows you to select the additional antenna using the satellite receiver remote.
9. TV/VCR
RF Modulator can be used 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 correct channel number. The yellow RCA connector or the S-Video connect will provide a better video quality.
10. Power Cord
Your receiver requires a current of 100~120V AC, 60Hz. Make sure to check the power specification before connecting your receiver to the wall outlet.

3. Connecting to the TV&VCR

3.1 Connecting to the TV & VCR

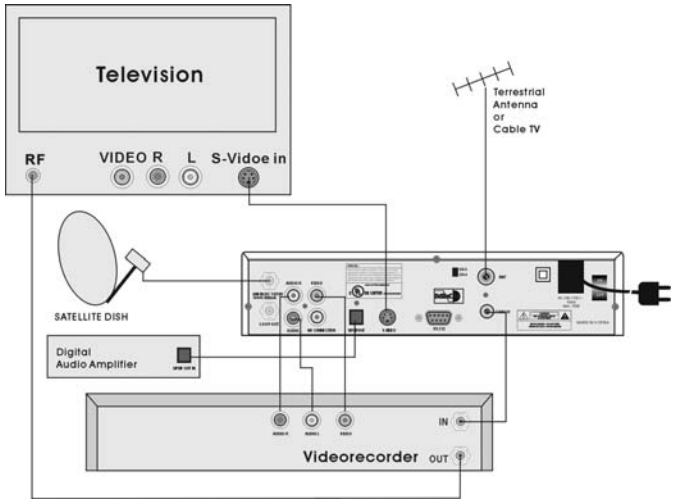
Basic Connection

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. Connect the RCA connectors at the back of the receiver to the RCA in connectors on your TV set for better picture quality. Or, also use the S-Video connector for the best picture quality (not shown in diagram).
4. Optional: Connect an extra terrestrial or cable antenna to the ANT connector at the back of the receiver.



Advanced Connection of the Receiver to the TV set, VCR and Audi Amplifier

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the audio S/PDIF OUT on the back of the receiver to the S/PDIF input of an Audio Amplifier (Dolby Digital decoder).
3. Connect the RCA connector on the back of the receiver to the RCA IN connector on your VCR set.
4. Connect an extra terrestrial or cable antenna to the ANT connector on the back of the receiver.

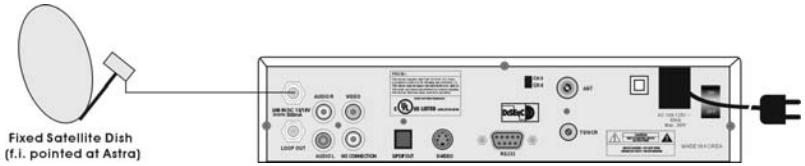


3.2 Connecting to Dish

Aiming a satellite dish and LNB with the correct longitude and azimuth (angle of elevation) at a satellite is a specialist job, which a professional installer can do best**.**

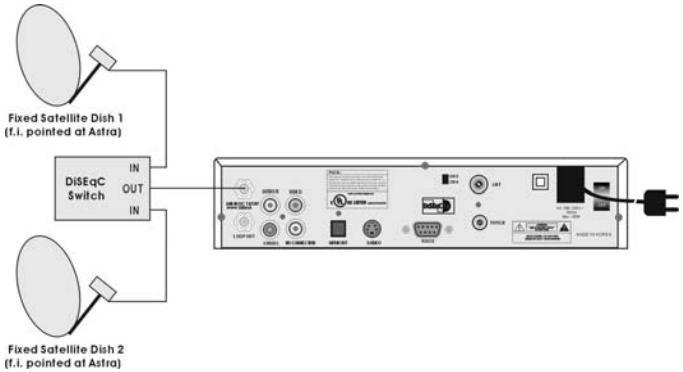
Connecting a fixed satellite dish to your receiver

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



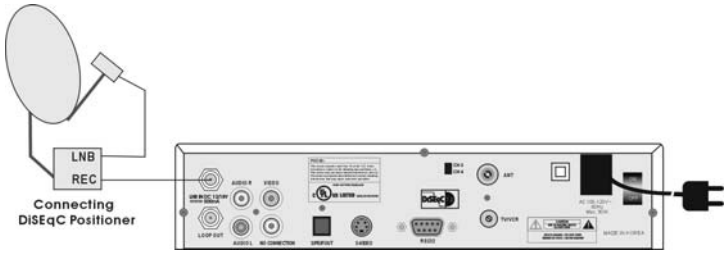
Connecting multiple fixed dishes to your receiver using a DiSEqC switch

If you want to watch programs from more than one satellite (for example, from Intelsat America 5 and from AMC4) it can be done using two fixed dishes (fixed, meaning permanently pointed at one satellite) and a DiSEqC switch. Have your installer aim the dishes at the requested satellites and connect the LNBs with coax cables to the IN connectors of the DiSEqC switch. Connect the OUT connector of the DiSEqC switch to the LNB IN connector on the back of your receiver.



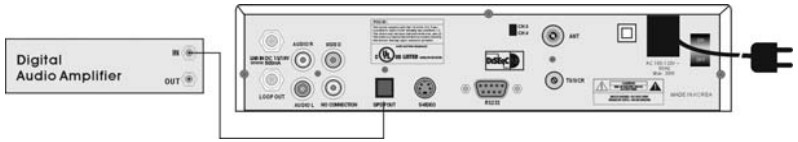
Connecting a dish on a motorized positioner to your receiver

Another possibility to watch programs from multiple satellites is by mounting a dish to a motorized DiSEqC 1.2 or USALS positioner. We recommend the use of STAB HH Motors. Have your installer mount the dish to the positioner, set the correct azimuth (angle of elevation) and let him set the center point for your positioner. For complete instructions on connecting a STAB HH Motor, visit their Web site at www.usals.info.
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.



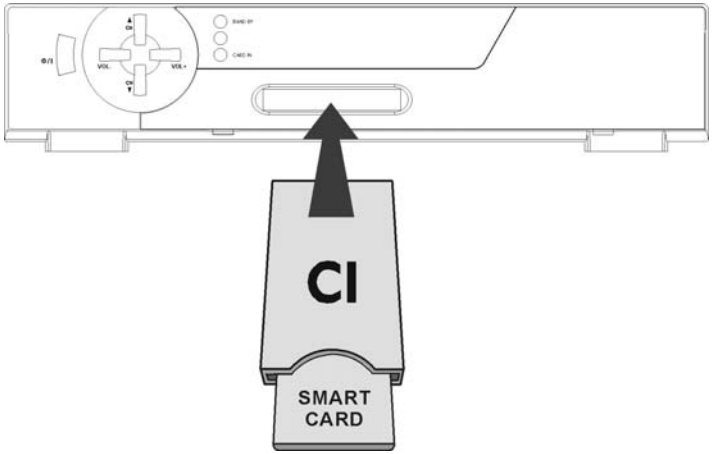
Receiver to AMP with S/PDIF OUT

Connect the AMP to the S/PDIF OUT.



3.3 Connecting to SMART CARD (for CI or CAS models only)

Insert Smart Card into the Smart Card slot for watching TV programs from a Service Provider. (Not Shown: the embedded card slot is located beside the CI slot embedded card slot models)



4. Settings and Operations

4.1 Before Settings

Starting up for the First Time

Ensure that your satellite receiver is correctly connected to your television and dish, and that your satellite signal is of good quality. (If you are not sure about this then ask your installer to check your installation or satellite signal). The default language of the On Screen Menu is set to English. To choose to another language refer to "Language Setting" in the manual.

NOTE: Every time the receiver asks you for a PIN code, enter '0000' on your remote control using **[0-9]** numeric keys. You can change this PIN code in the "Parental Lock" menu.

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

<Main Menu Screen>

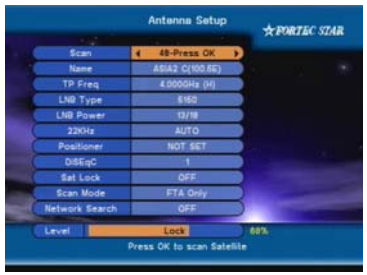
The menu consists of main-menu and sub-menu, as you see in the **<Main Menu Screen>.** Main-menu has 5 items and each main-item has its sub-menu items.

4.2 Basic Settings

Antenna Setup

With this menu, you can designate the satellite and download the channels.
Up to 64 satellites can be stored in the receiver. In this menu, you can edit the satellite name as well.

1. If you press **OK** for **Antenna Setup** in the Installation Menu, the **<Antenna Setup Screen>** will appear.
2. Use the **Up/Down** button to select the item, and set up the parameters with the **Left/Right** button.



<Antenna Setup Screen>

Scan: Indicates selected satellite number. Use **Left/Right** button to select other satellites. To scan for channels on the current satellite, press the **OK** button. (Before you scan, check the other values. If some values are incorrect, the channels cannot be scanned properly).

Name: This menu item shows the selected satellite name. You can also select other satellites using the **Left/Right** button. If you want to edit the satellite name, press the **OK** button, then the satellite name edit screen will be displayed.

TP Freq.: This menu item shows the frequency value, polarization and symbol rate for the transponders belonging to the satellite. To select another transponder, use Left/Right button to view the dropdown list. You can highlight and press OK to select the desired transponder. If the transponder is "active", the Level meter will **LOCK** after you select it by pressing the OK button (assuming your dish is aligned properly). If you want to scan only the indicated transponder, press the OK button again after selecting it from the dropdown list.
You can add a new transponder to the dropdown list by going to the bottom of the list of transponders. Press OK on **NEW TP**, and then enter the new transponder parameters. Press OK to save the new transponder.

LNB Type: This menu item shows the LNB frequency value. To scan channels, you must select the correct LNB type that you have on your dish. The default value is for the Fortec Star Universal LNB. You can change the LNB Type by using the Left/Right button. Other common LNB types used in North America are 5150 for C-band LNBs, 10750 for Standard LNBs and 11250 for Circular LNBs. You can also directly enter your LNB frequency value by selecting the 0 value, then using the number pad on your remote, enter the value you need. After you select the correct LNB type, press the OK button to save the selected value.

LNB Power: For the Universal LNB type, the correct settings for LNB Power and 22KHz are pre-determined and cannot be changed. For other types of LNBs, you can select 13V or 18V for LNB power. Select Off if you want to turn off the LNB power. After selecting the value you want, press the OK button to save the selected value.

22KHz: You can set the 22KHz switch to ON, OFF or AUTO mode. After selecting the value you need, press the OK button to save the selected value.

Positioner: If you use a USALS or DiSEqC 1.2 positioner, you would enter the parameters by pressing OK.

Once you press OK, the **USALS** setup menu appears. Go down to the **My Longitude** and **My Latitude** fields. Enter this information for your location. Pressing OK on the **Goto REF** field will move the dish to the 0 center position. Pressing Save (red button) or Save & Exit (green button) will move the dish to the satellite position.

You can change the Positioner setting for a DiSEqC 1.2 motor. Highlight the **Move** field to then move the motor to the desired location. The Right arrow button moves the dish to the West and the Left arrow button moves the dish to the East. If the dish position is correct to receive the satellite signal, the signal Level Meter will indicated LOCKED. (Be sure to select an active TP.) The **Set Limit** field allows you to set limits to the West and East (your dish will not move beyond those limits). You do not have to set limits, but it may be necessary depending on the location of your installation, i.e., if full range of movement is not permitted. To save the dish position, press Save (red button) or Save & Exit (green button).

DiSEqC: The default value is 'OFF'. Select the position (1~4) according to the ports on the DiSEqC switch that the satellite dish is connected to. Press OK to save the selected value.

Sat Lock: If this value is set to 'ON', you must input the Parental PIN code to view channels on the satellite when changing channels from an unlocked satellite channel to this locked satellite channel.

Scan Mode: You can select one of three modes:

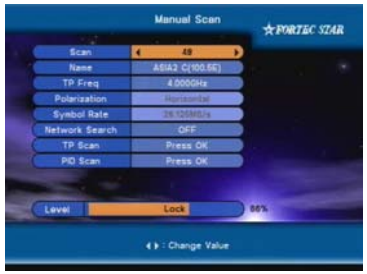
- FTA Only: When 'FTA Only' is selected, it downloads from the satellite only channels indicated to be Free-to-air (FTA).
- ALL: When 'All' is selected, it downloads from the satellite all channels that are indicated to be Free-to-air (FTA) and scrambled. (Note: To view scrambled channels, a valid subscription card is required. Occasionally, some channels are indicated as scrambled, but are in fact FTA.)
- Full Power Scan: When 'Full Power Scan' is selected, the receiver will first search the satellite for all available transponders. These transponders will be added to the bottom of the list of transponders stored in the receiver. Once the Power Scan is completed, the receiver will then start the channel download process. Press the OK button if you want to modify the parameters for the Power Scan.

  - Mode: Choose between FTA channels or ALL channels.
  - Type: Choose between Horizontal and Vertical polarity, or Horizontal only, or Vertical only.
  - Start/Stop: Allows changing the frequency search range. For example, for a Universal LNB, the values can be changed to any range between 10700-12750. For a C-band LNB, the values can be changed to any range between 3400-4200. For a circular LNB with an L.O. frequency of 11250, the values can be changed to any range between 12200-12750. For all other LNBs, the values can be changed to any range between 11700-12200. The default values are set to the most common search range.
  - Step: Allows changing the step value. For example, instead of the search moving in increments of 6 MHz, it can be changed to 10 MHz. It will be faster to complete the search with a higher value, but a lower value may be more precise in finding transponders especially at low symbol rates.

Network Search: Select 'ON' to perform a network search for a transponder.

Manual Scan

You can also search channels on one transponder, or **add/modify/delete** transponder information in this menu.



< Manual Scan Screen >

1. If you press OK on the **Manual Scan** option of the Installation Menu, **<Manual Scan Screen>** will appear.
2. Use the **Up/Down** button to select the item, and set up the parameters with the **Left/Right** button.

Scan Number: Indicates the selected satellite number. Use Left/Right button to display the satellite list. You can then highlight and select another satellite by pressing the OK button.

Name: This menu item shows the selected satellite name. Similar to the **Scan Number**, you can also select another satellite using the Left/Right button to display the list of satellites.

TP Freq.: This menu item shows the frequency value of a transponder that belongs to the current satellite. To select another transponder, use the Left/Right button to view the dropdown list of transponders. Then highlight the transponder you want and press OK to select.

If you want to add a new transponder, modify a current transponder or delete the current transponder, press the OK button. The transponder **Edit Menu** will be displayed, and you can then select the operation you want.

Polarization: This item shows the current transponder's polarization type, i.e. Vertical or Horizontal.

Symbol Rate: This item shows the current transponder's symbol rate value.

Network Search: Select 'ON' to perform a network search for a transponder.

TP Scan: Searches channels from a specific transponder. Press the OK button to start the scan process.

PID Scan: You can search a specific channel by entering the PID values for the channel if you know its value. Press the OK button to input PID values. In the PID input menu you should input the video, audio and PCR PID values. After inputting the PID values, press the OK button to search a given channel from the current transponder.

Before using the TP Scan menu, you should input the correct satellite information in the Antenna Setup Menu, for example, LNB type, LNB Power or DiSEqC switch options if used. You can check signal status with the Signal Level Meter display. If all values are selected correctly, the signal bar color will change and the word LOCK will appear.

Tips Check the Web site www.lyngsat.com or www.satcodx.com for a complete list of available satellites. These sites also indicate all the TP information and PID information for each satellite.

Clear Data

Be careful when using this function because it will erase all the data and parameters you may have set previously in your receiver. Once you have made a Factory Reset, you will have to re-install your parameters and re-search your channels. To reset your receiver, press the OK button and enter your PIN code (default is 0-0-0-0) to enter the reset menu.

Erase All Channel: It will erase all channel data for all satellites you may have searched.
Erase One Satellite: It will erase all channel data for the selected satellite. You can select the satellite for the channels you want to erase.
Factory default: It will erase all channel data and parameters you may have set previously in your receiver. You will need to re-install your parameters and re-search your channels again after setting the receiver back to Factory Default setting.

<Clear Data Screen>

4.3 Normal TV View Mode (Non-menu State)

During the normal TV viewing mode, various menus are displayed on the screen through the use of the remote control unit. You can change the current status and mode with various buttons including the Up/Down, INFO, and OK button. The banner displays information when you press the INFO button, or when you change the channel. If you press the INFO button again before the banner disappears, the detailed banner is displayed. The detailed banner shows detailed information for the current channel.

While viewing TV or Radio channels, various functions can be controlled using your remote control. The following is an explanation of the buttons on your remote control and their corresponding functions that can be performed while watching TV or listening to the Radio.

<INFO Banners>

A. POWER: Turns the receiver On/Off.

B. MUTE: Mutes the audio output of the receiver.

C. Numeric KEYS (0 ~ 9): Change the channel directly by pressing the channel number.

D. TEXT: Shows the list of subtitle languages the current channel supports. You can change the subtitle language by using the arrow keys and pressing OK. If no other subtitle language options are available, nothing will display on the screen when the button is pressed.

E. P+/P-: Not used in the normal view mode. With the TV, Radio or Favorite Channel List showing, it jumps 10 channels up or down.

F. TV: Shows the full list of TV channels for the current satellite or for all satellites if All Satellites is selected using the **SAT** button.

G. Radio: Shows the full list of Radio channels for the current satellite.

Note: TV/Radio List in Normal Viewing Mode
If you press the TV or Radio buttons in Normal Viewing Mode, you can preview the channels via the P-I-G (Picture-in-Graphic). You can quickly move through the list of channels by using the P+/P- buttons.

H. FAV (♥): Shows the list of your current favorite channels if you have added channels to your list.

Note: Favorite List in Normal Viewing Mode
If you press FAV on the remote control in the Normal Viewing Mode, you can preview the channels via P-I-G (Picture-in-Graph). You can quickly move through the list of channels by using the P+/P- buttons.

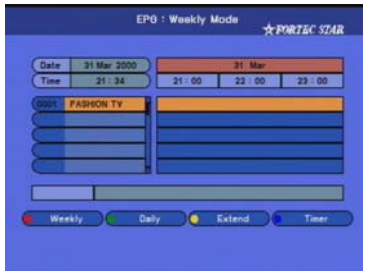
I. UP/DOWN ARROW: Change the current channel to the previous/next channel in the TV or Radio list.

J. LEFT/RIGHT ARROW: Left arrow reduces the volume level. Right arrow increases the volume level.

K. EPG: In the normal view mode, it shows the EPG screen. EPG shows the event information on the current TP channel by time zone. EPG is divided into Weekly mode, Daily mode and Extend mode. It provides timer based recording and automatic Power On/Off using the Timer function. **The event is displayed ONLY IF the channel supports EPG**.

If you press the EPG button, the Weekly mode is displayed by default.

- **Weekly (RED Button):** The current transponder channel list is displayed on the left, and the event information is displayed on the right by time zone.
- **Daily (GREEN Button):** If you want to display the Daily mode of the current channel, press the GREEN button. In the Daily mode, the receiver shows the designated channel in P-I-G, and displays the channel event in detail.
- **Extend (YELLOW Button):** If you press the YELLOW button, the receiver shows the detailed information of the current event.
- **Timer (BLUE Button):** Move the cursor to an event in the required time zone and press the BLUE button. The timer is set to the designated time. Refer the "Timer Setting" menu for details on the timer settings.



<EPG Screen>

L. MENU: Shows the main menu. Pressing this button a second time will make the main menu disappear.

M. SAT: Displays the list of satellites you have scanned with your receiver. You can change the satellite you want to watch by using Up/Down keys and pressing the OK button. (If you have set up a motorized positioner to move the dish, a message will indicate that the dish is moving.)
The SAT button is disabled in the favorite channel mode because there can be a number of different satellites from which you have added channels to your favorite list.
You can also use the Right arrow button from the Satellite list to view the channels available for that satellite. If you press OK while highlighting a channel, the receiver will display that channel, if the dish is already on that satellite. It will move the dish before displaying the channel, if the dish is connected to a positioner. It will switch to another satellite, if connected to a DiSEqC switch before displaying the channel.

N. LANG (Language): Shows the list of available audio languages for the channel you are watching. You can change the audio language to the one you want to hear.

O. PAUSE: Freezes the picture on the screen. If pressed again, the picture will continue. It does not pause the program (like a PVR function), just the video image.

P. EXIT: Exits from the menu or sub-menu, and cancels any functions in progress if applicable.

Q. INFO: If you press the INFO button once, a banner is displayed on the bottom part of the screen. If you press the button once again before the bottom banner has disappeared, an extra banner is displayed at the top of your screen showing the details of the current channel. Pressing it a third time removes the banner information.

R. SOUND: Sets the current channel audio to stereo, left-mono or right-mono. Pressing the sound button changes the sound icon on the banner.

S. RECALL: Changes the channel to the previously viewed channel. This button does not function if the previously viewed channel was on another satellite and your dish is connected to a motor.

4.4 Managing Channel Data

You can edit the channels you have downloaded to your receiver through the **Channel Manager Menu**. To access this menu press Menu on your remote, and use the Left/Right arrow buttons to go to the Channels heading in the menu.

Channel Manager

Press OK on the Channel Manager menu and the following screen will be displayed. Use Up/Down button to select the channel you want.

RENAME: You can change the name of any channel. Press the RED button, and then the name-editing screen will be displayed. For more information, refer to the name-editing section of this manual.

LOCK: If you lock a channel, you can only view it after entering your PIN code. To lock a channel, press the GREEN button. The default PIN is 0-0-0-0. Once a channel is locked, the Lock icon is shown in the Channel Manager beside the Channel Name. To disable the lock function, repeat this procedure again.

DELETE: You can delete a channel from the channel list. Use the YELLOW button to delete a selected channel. Be careful when deleting a channel. If a channel is deleted, it can't be recovered and you must re-scan the channel if you want it back.

MOVE: You can move a channel to another position in the channel list. Press the BLUE button, and then the selected channel name will be displayed with a different color. Use the Up/Down button to move the selected channel to the new position in the channel list. After moving the channel, press OK again or the Exit button to end the moving operation.

<Channel Manager Screen>

In the Channel Edit menu, you can also change the channel mode. Press the TV button to edit TV channels and Radio button to edit Radio channels. Also you can edit channels on a different satellite by using the SAT button. If the SAT button is pressed, you can view the satellite list for all satellites that you have downloaded channels from. From this list, select a different satellite if you wish to edit its channels.

Add Favorites

You can set a list of Favorite channels from the current TV/Radio channel lists. To set your Favorite channel lists, press the OK button on the **Add Favorites** menu item. The **Add Favorites Screen** will be displayed.

Using Up/Down button or P+/P- button to select the channel. Press the RED, GREEN, YELLOW, or BLUE button to add the channel to one of four Favorite lists. For example, if you press the RED button, the channel is added to the 'Fav 1' list, and a red heart will appear beside of selected channel name. If the RED button is pressed again, the selected channel is un-selected from the 'Fav 1' favorite list. The same channel can be added to more than one list. Press Exit or Menu button to save and exit this menu.

<Add Favorites Screen>

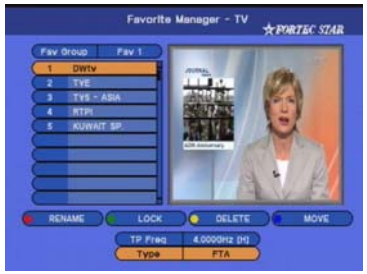
Favorite Manager

You can also edit channels in your Favorite list by using the **Favorite Manager**. This works similar to the **Channel Manager** for editing channels in the Channel List. The **Favorite Manager** is shown below in the **Favorite Manager Screen**.

Since using the **Favorite Manger** is the same as the **Channel Manager**, please refer to the **Channel Manager** section for further instructions.

You can make four favorite channel lists using the **Add Favorite** menu. To select another favorite channel list, press the **FAV** button. Whenever the **FAV** button is pressed, another favorite channel list is displayed.

Similar to the Channel Edit menu, you can select TV or Radio favorite channel lists using the **TV** or **Radio** button. However, in the Favorite Edit menu, you cannot use **SAT** button.



<Favorite Manager Screen>

Sort Channels

To sort your channels, select the **Channel Sort** menu item and press the OK button. The **Sort Channels Screen** will be displayed.

Name: If you press the **RED** button, you can sort the list of channels alphabetically.

TP: If you press the **GREEN** button, you can sort the channels by transponder order from lowest frequency value to highest for the current satellite.

Type: If you press the **YELLOW** button, you can sort the channels by type of channel, i.e., Free-to-Air or scrambled program.

<Sort Channels Screen>

You can also sort other satellites' channel lists using the **SAT** button. Once you have finished sorting the channels, press Exit or Menu button to save and exit the menu. (A message that the receiver is saving the changes you made will be displayed).

4.5 System Setup

TV Settings

You can select several of the receiver's output features from this menu. Press Left/Right button to select other values for each menu item. After selecting a value, you should press the OK button to save it.

TV Mode: You can select the video display mode to any of NTSC, PAL, or MULTI. In North America, the TV Mode should be set to NTSC. Press Left/Right button to select other modes. After selecting the mode, press the OK button to save the selected mode value.

Screen Mode: When a video channel program transmission is in 16:9, and you have a TV set with 4:3 picture format, you can select the Full Screen or Letter Box picture format.

<TV Settings Screen>

SPDIF Output: If you connect the receiver to an AC3 amplifier (Dolby Digital decoder), and you want the AC3 audio to pass through the receiver to your amplifier, you need to set the SPDIF Output to ON.

Time Setting

You can define the receiver time mode in this menu. If a broadcaster transmits GMT time, select the **GMT Usage** to ON. Enter your Time Zone information and the correct time is automatically adjusted. (This function is not supported in all regions.)

When the **GMT Usage** is set to OFF, you can set the date and time directly. To adjust the **Set Date** value, press the OK button on the **Set Data** menu item. A calendar window will appear. After selecting the correct date, press the OK button. In the calendar window, you can change month using P+/P- button. To set the time value, move to **Set Time** menu item and press numeric buttons to the input time value. After changing any values, press the OK button to save the information.

<Time Settings Screen>

Timer Setting

The timer function can automatically switch **On** or **Off** your receiver at any desired time. This enables you, for example, to record programs with a VCR while you are not at home.
Select Timer Setting item and press the OK button to enter the **Timer Setting** menu. The **Timer Setting Screen** will be displayed. You can then set your VCR timer accordingly.

<Timer Setting Screen>

In this screen, you can see the list of current Timer Events already saved. Use Up/Down to select a Timer Event. Press the OK button to open up the Timer Event. The following **Timer Setting Event Screen** will be displayed.

<Timer Setting Event Screen>

Timer Number: You can select up to 8 different Timer Events.
Timer State: Set to 'Enable' to use the timer event, or 'Disable' to stop the Timer Event.
Timer Cycle: You can set the cycle of the action designated in the Timer Event.
Timer Service: You can select the following functions:

- Sleep : The receiver powers off at the designated date and time.
- Wake Up : The receiver powers on at the designated data and time.
- VCR Record : The designated channel gets displayed at the desired start time and played until the end time is reached.

Date: You can set the starting date of the Timer Event. Press OK button, then a calendar window will be displayed and you can select the Month and Day value.
Start Time: You can set the starting time of the Timer Event. Use the numeric buttons to input the start time directly.
End Time: If VCR Record service is selected, you should define this ending time.
Channel: You can set the channel to be shown when the receiver timer service is Wake Up or VCR Record. Press OK button, then the channel list will be displayed. To select a channel that is in another satellite, use Left/Right button.

System Information

Shows the system information including the Firmware version and model name.

<System Information Screen>

4.6 Preference

Language Settings

You can change the language of the menu, audio and subtitles in this menu operation.

- Menu Language: To select another menu language, use the Right button to view the language list. From the list, select the language you want to use and press the OK button. After selecting a new language, you must press the OK button to save the change. The menu will change to the language of your choice.
- 1st audio lang / 2nd audio lang / subtitle lang: Similar to the Menu Language, you can also select your preferred audio language and subtitle language, if they are broadcast by following the same steps. After your selection, you should press the OK button to save your selected language changes.

<Language Setting Screen>

OSD Settings

You can change the OSD (On Screen Display) of your receiver to your personal preference.

- Color Scheme: Use the Left/Right button to select the OSD color scheme. After selecting your preferred color scheme, you should press the OK button to apply and save the color scheme change.
- Transparency: Use the Left/Right button to select how transparent you want your OSD. After selecting, you should use the OK button to save and apply the transparency level change.
- Brightness: Use the Left/Right button to select OSD's brightness level. After selecting, you should press the OK button to apply and save the brightness level change.
- OSD Timeout: Use Left/Right button to select how long you want the information banner to be on the screen when starting your receiver or when changing channels. If you select ON, the information banner will remain on until you press the EXIT button or the INFO button twice.

<OSD Setting Screen>

Parental Lock

This function changes the Personal Identification Number (PIN) that is used to control access to the menu and individual channels. In this function, you can lock/unlock channels and you can change your PIN code.

The default PIN to enter this menu is 0-0-0-0.

<Parental Lock Screen>

- **Menu:** If you select 'Lock', the receiver asks you to enter your PIN code every time you want to access the menu. If you select 'Unlock' it gives you the possibility to access the menu all the time without the receiver asking you for a PIN code.

To change your PIN code, apply the following steps.

1 - First, using Up/Down button select 'Old Pin' and enter your current your PIN code, for example 0-0-0-0 if the PIN has not been changed.
2 - Select 'New PIN' and enter a new PIN code.
3 - Select 'Verify PIN' and enter the SAME new PIN code entered in the 'New PIN' field.

After selecting Menu lock option and/or changing your PIN code, you should use the OK button to save and apply your changes. If you don't use the OK button and exited using 'Exit' button, your changes will not be applicable.

GAMES:

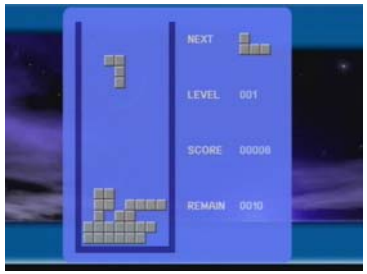
Tetris / Snake / Sokoban

Tetris

If you want to play the Tetris game, select the 'Tetris' menu item and press the OK button.

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

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

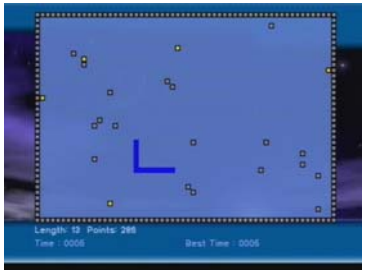


<Tetris Screen>

Snake

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

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



<Snake Screen>

Sokoban

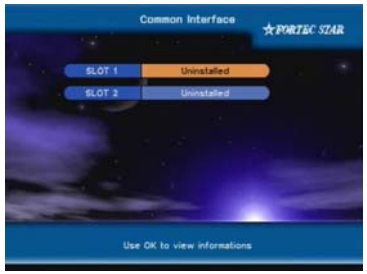
You are the sokoban, and you have to push the balls to their correct positions. The balls can only be pushed, never pulled, so you have to be careful not to push them into a corner where you can't get them out again. You can only push one ball at a time.

<Sokoban Screen>

You can move around by using the arrow keys.
You can restart the level by using the RED button.
You can use undo function by using the GREEN button **(only one step).**
You can go to previous or next level (between completed level) by using the YELLOW and BLUE button.

CI Menu (Not applicable to the FTA Model)

You can navigate the menu, which is provided by the CI Module.
This information varies depending on the service provider.



<CI Screen>

CAS Embedded

If your model comes with an embedded CAS card Slot, additional information will appear in this Section.

4.7 Name Editing

In the menu function, you can edit the Channel name, Satellite name and Favorite Group name. For example, to edit the channel name in the **Channel Edit** menu, move the cursor to the channel you want to edit and press the RED button. Then following edit screen will be displayed.

The current name is displayed on the upper part of editing screen, and the keypad is displayed just below the name.
Use the Left, Right, Up and Down buttons to move keypad cursor to the character you wish to input and press the OK button. Then the selected character will replace the character in the name box. If you want to delete a character, move the keypad cursor to 'Delete' keypad and press the OK button.

Once you finish editing the name, move the keypad cursor to 'Save' and press the OK button. If you want to ignore name editing, press Exit button.

<Edit Name Screen>

This procedure is applicable to Satellite Name edit and Favorite Group Name edit function as well.

A.1 Trouble Shooting

Occasionally, receivers can 'hang-up' so you are recommended to reset the receiver by disconnecting it from main power. Wait more than 10 seconds and connect to main power again. Check if the unit is working as expected. If the receiver does not work properly after checking the trouble shooting section, please contact the dealer you purchased the unit from.
Don't open the receiver cover as it may cause an electrical shock due to high current voltage. Warranty of your receiver will be void if the receiver has been opened.

Symptom	Cause	Remedy
The red light and segment lights on the front panel do not light up	The power cord is not plugged in.	Check that the power cord is plugged in to the wall outlet.
No picture and sound	TV is set to wrong channel or wrong input.	Check if the TV is switched on and set your TV to the correct EXT/AV or UHF channel.
No picture or sound	Problem in cable connections between TV and receiver.	Check if cable is connected correctly to the TV and to the back of the receiver.
No picture and sound	Receiver 'hang-up'	Switch off receiver; disconnect the main power cord of the receiver from the main power. After more then 10 seconds reconnect to the main power and check if it is working properly.
No sound	The receiver or TV is in 'MUTE' mode	Press the MUTE button on the remote control unit of your receiver and TV.
No picture and sound	Problem in cable connections between receiver and TV	Firmly press the connectors on the backside of the TV and receiver. Replace the cable.
No picture	Wrong alignment of the antenna dish.	Check the signal strength with a spectrum analyzer and adjust your dish correctly.
Receiver display the message "No or Bad signal" during bad weather conditions	This is normal, the bad weather is interfering the signal between the satellite and your dish.	Once the weather is better the picture will appear. If not, check if there is snow built up on your dish.
The receiver displays the message 'No or Bad signal'	Wrong satellite selected in the menu.	Press the SAT button on the RCU and select the correct satellite.
The receiver displays the message 'No or Bad signal'	Wrong parameters set in the menu.	Check settings of LNB type or related values in the Installation menu.
The receiver displays the message 'No or Bad signal'	Wrong alignment of the dish.	Ask your dealer to check the outdoor unit and antenna cable to LNB
Front display 'LNBP' or LEDs of front panel of receiver are blinking	Overload of the maximum available LNB power. (Short circuit in the LNB cable)	Disconnect the main power and ask your dealer to check the LNB cable.
The remote control is not working	The batteries of the remote control are not inserted or exhausted.	Check whether the batteries are inserted correctly in remote control unit. Check the batteries.

A.2 Specifications

1. Conditional Access Interface (CI Model only)

PCMCIA	2 Slot (type I or type II) DVB Common Interface Standard (Viaccess, Nagra Vision, Conax, Cryptoworks, Irdeto, ASTON)

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±5%, 0.5Amax, Overload protected
22kHz Tone	Frequency: 22 kHz±2kHz Amplitude:0.6V± 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 Constant Length K=7

3. System & Memory

Main Processor	STi5518
Flash Memory	2 Mbytes
SDRAM	8 Mbytes
EEPROM	8 Kbytes
Channel Memory	Digital Channels: 4800
Multi-Satellite	Up to 64
Multi-Language Menu	English/ Italian/ Turkish/ French/ German/ Spanish/ Greek
Front	7 Keys, 1LED
Remote Controller	34 Keys, 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 X 576(PAL), 720 X 480(NTSC)
Teletext	Through VBI & OSD
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single channel/Dual channel Joint Stereo/Stereo
Frequency Response	20Hz~20kHz, <+/-2dB 60Hz~18kHz <+/-0.5dB
Sampling Rate	32, 44.1, 48kHz

5. A/V & Data In/Out

S-video Output	North American model only
RCA Output	CVBS, L, R Output (Yellow, White, Red Jack) with Volume Control
S/PDIF Output	RCA Output Black (Cinch) or Toslink Optical
Data Interface	RS-232, Bit Rate: 115200 baud Connector: 9-Pin D-Sub Male type

6. RF-Modulator

RF-Connector	75Ω IEC169-2, Male/Female
Frequency	470MHz to 860MHz
Output Channel	CH 21-69 for the Demodulator or CH 3-4 for North America
TV Standard	NTSC, PAL B/G, D/K, I Selectable by Menu Setting
Audio Output	Mono with Volume Control
Preset Channel	CH 3 (or TBD), Software changeable by Menu screen

7. Power Supply

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

8. Physical Specification

Size (W x H x D)	280 X 55 X 235mm Excluding the foot. Foot height is 6mm
Weight	2.0kg

9. Environmental Condition

Operating Temperature	0 +/-40 Celsius
Storage Temperature	-10 ~ 50 Celsius
Operating Humidity Range	10 ~ 85% RH, Non-condensing
Storage Humidity Range	5 ~ 90% RH, Non-condensing

A.3 Glossary of Terms

C band
3.4 ~ 4.2 GHz Frequency.

DiSEqC
Digital Satellite Equipment Control.

Ku band
10700 ~ 12750 GHz 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 two programs 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.

FORTEC STAR
DIGITAL SATELLITE SYSTEMS

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FCC NOTICE

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC FULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITION:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDERSIRED OPERATION.

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 communication. 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 difference from that to which the receiver is connected.

- Consult the dealer of an experienced radio/TV technician for help.

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.
Such modifications could void the user’s authority to operate the equipment.