1 Important safety instructions & FCC information

1.1 Safety

CAUTION	:TO REDUCE THE RISK OF ELECTRIC SHOK DO NOT REMOVE COVER(OR BACK) NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lighting flash with arrowhead symbol,
Within an equilateral triangle, is intended to alert the user to the presence of un-insulated
“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.

FOR YOUR SAFETY

- The space around the receiver should be clear to allow for proper ventilation of the receiver.
- Do not cover the receiver or place it on a unit that emits heat
- Use a damp soft cloth to clean the casing.
- Do not connect or disconnect cables when the receiver is plugged in.
- Do not remove the cover.
- Do not allow the unit to be exposed to hot, cold or humid conditions.
- Never allow liquids, spray or other materials to come into contact with the inside of the receiver.

Outdoor Use Marking

Warning : To prevent fire of electric shock, do not expose this appliance to rain or moisture.

Cable System Installation Marking

Note to CATV System Installer:

This reminder is provided to call CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical

Polarized Attachment plug Marking

Caution : To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Important Safety Instruction

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) Head Warnings	: All warnings on the product and in the operating instructions should be adhered to.
4) Follow instructions	: All operating 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.
6) Exception	: A product that is meant or uninterrupted service and that for some specific reason, such as the possibility of the loss of and authorization code for c 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.
7) Attachment	: Do not use attachments not recommended by the

product manufacturer as they may cause hazards.

8) Water and Moisture : Do not use the product near water for example, near a bath, wash bowl, kitchen sink, or laundry tub ; in a wet basement; or rear a swimming pool; and the like.

9) 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.

10) 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. Please refer to picture 1 in the end of this chapter.

11) Ventilation : Slot and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protest 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.

12) 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, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the perating instructions.

13) Grounding or Polarization

: This product may be equipped with a polarized alternating current line plug(a plug having on blade wider than the other). This plug will fit into the power outlet only on way. This is a safety feature. If you are unable to insert the plug gully into the outlet, try reversing the plug. If the plug should still fail to fir, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarizing plug.

Alternate Warning : This product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

14) 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.

15) 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 of the plug is required, be sure the service technician has used a replacement plug specified by the mnufacturer that has the same overload protection as the original plug.

16) 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.

17) 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.

18) 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.

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

20) 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 of electric shock. Never spill liquid of any kind on the product.

21) Serving : Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all serving to qualified service personnel.

22) 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 dose not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an importer 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.

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

24) 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.

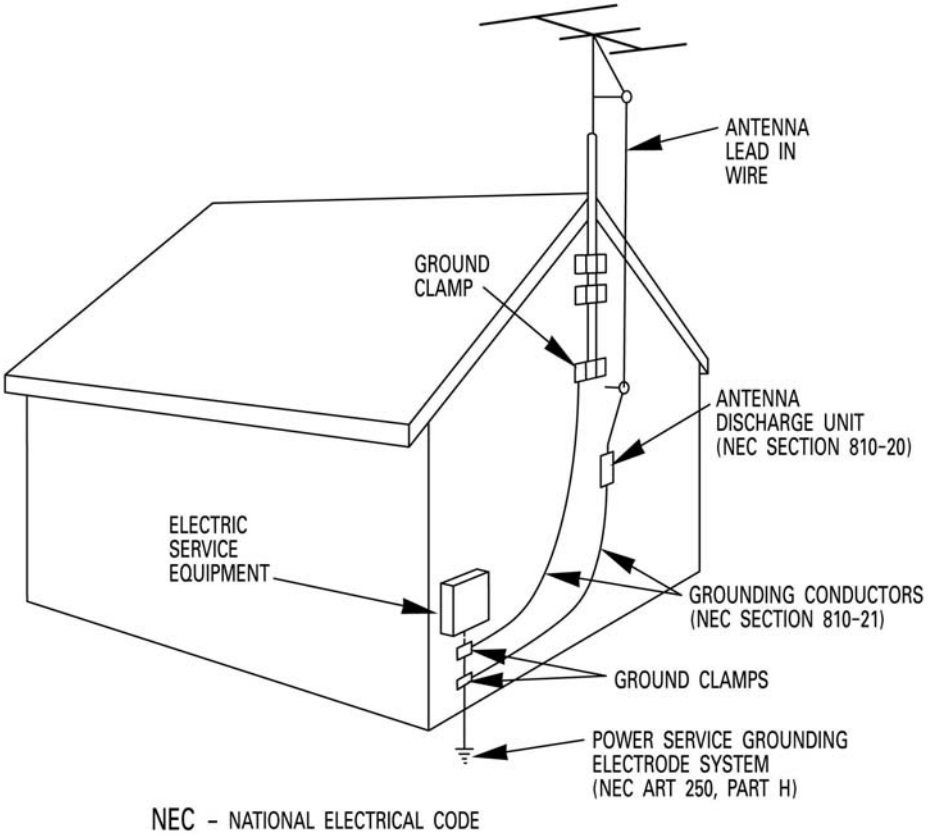
25) Wall or Ceiling Mounting
: The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

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

Important Safety Instruction

Picture 1) Example of Portable cart warning (Symbol provided by RETAC)

Picture 2) Example of antenna grounding as per national Electrical code, ANSI / NFPA70



1.2 FCC Information

FCC ID : PFNDMT1730

This device complies with part 15 of the FCC Rules, Operation is subject to the following two conditions :

(1)This device may not cause harmful interference, and
(2)This device must accept any interference received, including interference that may cause undesired operation.

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.

Modifications not expressly approved by the manufacturer could void the user's authority to operated the equipment under FCC rules.

2 View Programmes

2.1 Programme Information

INFO MODE

You can view information about the current programme by pressing the "Info" button on the Remote Control. Each time you press the button, more information about the programme will be displayed onscreen. To exit INFO MODE, continue to press the “Info” button until the information screens disappear, or press “Exit” at any time.

INFO 1 MODE

Displays the following information:

- Channel Name
- Channel Number
- Programme Name
- Current Favourite List Name

INFO 2 MODE

Displays the following information:

- Channel Name
- Channel Number
- Current Favourite List Name
- Today's Date and Time
- Channel Favourite Status Button
- Programme Monitor Status Button
- Programme Start Time
- Programme End Time
- Programme Theme
- Programme Rating
- Programme Name
- Programme Time Remaining

INFO 3 MODE

Displays all of INFO 2, plus:

- Programme Description
- Transparent Window

INFO 4 MODE

Displays all of INFO 3, plus:

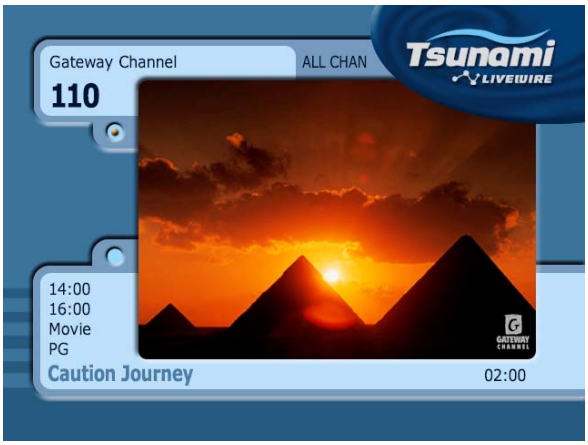
• Opaque Window

2.2 Programme Navigation

NAVIGATING INFO MODE

Use "**Channel +**" or "**Channel -**" to tune to the next or previous available channel. The screen will remain in the INFO MODE you have selected. To exit INFO MODE, continue to press the "Info" button until the information screens disappear, or press "Exit" at any time.

Note: Even if you are not in INFO MODE, your screen will display brief information about the current programme each time you change the channel. This information will remain onscreen for about ten seconds.



In any active INFO MODE you can use the "**Up Arrow**" and "**Down Arrow**" to scroll through the channel lineup and view programme information without changing your current channel. This way, you can evaluate what is on other channels without leaving your current programme.

Use the “**Right Arrow**” button to preview information for the next programme on your current channel. Use the “**Up Arrow**" and “**Down Arrow**” buttons to scroll through the channel lineup for information on all programmes in the next time slot. Use the **“Left Arrow”** button to return to the current time slot.

While viewing programme information, press **“OK”** to select and tune to a programme. If you select **“OK”** for a programme in the next time slot, your television will tune immediately to that channel.

Use numbers 0-9 on your Remote Control to enter a specific channel number, and your television will tune to that channel after a brief delay. Press **“OK”** to tune to a channel manually, without a delay.

2.3 Programme Guide

USING THE PROGRAMME GUIDE

Press “GUIDE” on your remote control to display a list of all available channels and their programmes.

Use the arrow buttons to move the orange highlight onscreen and choose a programme. You can make a selection by pressing “**OK**”. Once you make a selection, you will be given a full description of the programme and the following two options: VIEW NOW or SET TIMER to view the programme when it becomes available.

UNDERSTANDING THE BROWSER MODE

In browser mode, you can scroll through a channel lineup of your choice. The Programme Guide in browser mode is divided into four sections.

The top right corner of your screen displays a video monitor of the current programme, along with the following information:

- Current Channel Number
- Current Short Channel Name

• Current Time

The top left corner of your screen displays the following information about the programme that you have highlighted:

• Channel Number
• Programme Start Time
• Programme End Time
• Channel Name
• Programme Name
• Short Programme Description
• Current Favourite List Name

The left column lets you scroll through the channels available in your current channel lineup and displays all programmes currently playing. The left column displays the following information:

• Current Date
• Channel Numbers
• Short Channel Names
• Current Programme Names

The right column displays the upcoming programmes available on the currently selected channel. Scroll down to show all the programmes scheduled for the day or select DAY SHIFTER to quickly jump ahead 24 hours. The right column displays the following information:

• Date of the Highlighted Programme
• Programme Start Times
• Programme Names

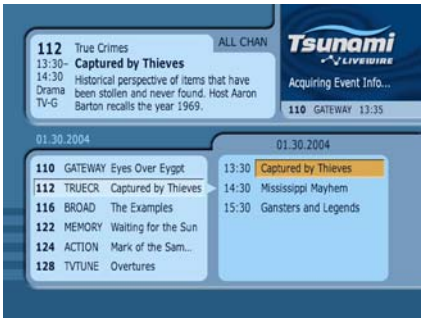
NAVIGATING IN BROWSER MODE

Each time you activate the Programme Guide, it will display information on your current channel and programme by default. Note that the VIDEO MONITOR corresponds to the description in the top left INFO WINDOW and the channel and programme name in the LEFT COLUMN.

Use the "**Up**" and "**Down**" arrows on your remote control to scroll through the channel lineup in the LEFT COLUMN. The RIGHT COLUMN displays future

programmes available on the channel that you have highlighted in the LEFT COLUMN.

Use the "**Right**" arrow on your remote control to browse inside the RIGHT COLUMN. Use "**Up**" and "**Down**" arrows to scroll through future programmes. You can return to the LEFT COLUMN by pressing the "**Left**" arrow at any time.



Note: Depending on programme length, the RIGHT COLUMN may not immediately display all future programmes. However, when you move the cursor into the RIGHT COLUMN, your Digital Set-Top Box will access and display all future programme information. In some cases, the Digital Set-Top Box will temporarily suspend the VIDEO MONITOR while accessing programme information. Once the data has been updated, video will return.

Use 0-9 on your remote control to enter a specific channel number, and the Programme Guide will highlight that channel after a brief delay.

DAY SHIFTER

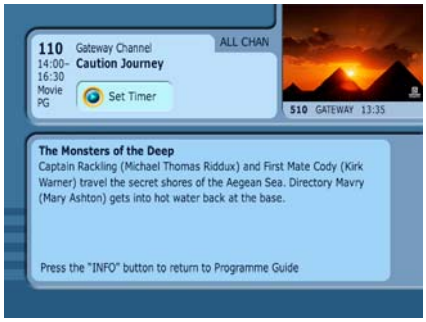
When you move the cursor inside the RIGHT COLUMN, the list will begin with

the current programme. From this position, use the "UP" arrow on your remote control to start the DAY SHIFTER feature. Once the current date is highlighted, use the "**Right**" arrow to skip ahead 24 hours from the current time. Each time you press the "**Right**" button, the display will skip ahead another 24 hours. Use the “**Left**” arrow to return to the current date.

At any time while using the DAY SHIFTER, use the "**Down**" arrow to browse through the programmes available that day. Note: To return to the DAY SHIFTER feature, you must first start over by returning to the LEFT COLUMN by pressing the “**Left**” arrow and return to the current date.

TUNING TO CURRENT AND FUTURE PROGRAMMES

At any time in browser mode, press "**OK**" on your remote control to display a full description of the programme you have highlighted.



If you select a CURRENT PROGRAMME, you will be given the option to tune immediately to that programme. Choose "**VIEW NOW**" onscreen by pressing the "**OK**" on your remote control.

If you select a FUTURE PROGRAMME, you will be given the option to set a timer so that you can view the programme when it begins. Choose "**SET TIMER**" onscreen by pressing "**OK**" on your remote control. A TIMER ICON will then appear next to the programme for which you have set a timer. Your TV will automatically tune to this programme when it begins. If you are still browsing in the Programme Guide at that time, you will be given a notice that your programme is starting.

If you do not wish to view the current or future programme, return to the Programme Guide by pressing "**INFO**" on your remote control.

You can cancel a timer at any time. Highlight the programme for which a timer has been set and press "**OK**" on your remote control. You will then be given the option to cancel the timer for that programme. Choose "**CANCEL**" onscreen by pressing "**OK**" on your remote control.

2.4 Options

USING THE OPTIONS SCREEN

While viewing any programme you can access the OPTIONS screen directly by pressing **"OK"** on your Remote Control.

Available programme options include:
• Edit Favourite
• Monitor Programme
• Additional Audio
• Additional Video

EDIT FAVOURITE

While browsing through the channels of a custom favourite list (Section 3.1), you can quickly delete any channel from the list. Also, by directly tuning to a channel by entering its channel number by using the number "**0-9**" on your Remote Control you can quickly add any channel. Use the "**Up Arrow**" on your Remote Control to activate the EDIT FAVOURITE feature. Press "**OK**" on your Remote Control to delete the current channel from your active custom favourite list. Select "**DONE**" to save changes.

You can also access EDIT CURRENT FAVOURITE through the MENU SYSTEM (Section 3.1).

Note: If browsing in ALL CHANNELS MODE, the Quick-Edit feature will be turned off.

MONITOR PROGRAMMES

Press **"JUMP"** on your Remote Control to toggle between the current channel and the most recently viewed channel. With MONITOR PROGRAMMES, you can increase the number of channels to cycle through.

While viewing any programme, access the OPTIONS screen directly by pressing **"OK"** on your Remote Control. Next, select MONITOR PROGRAMMES by pressing **"OK"** on your Remote Control and then selecting **"DONE"** onscreen.

Your **"JUMP"** button will monitor this channel only for the duration of the programme. When the programme is over, the channel will default back to normal. Use the **"JUMP"** button to cycle through all monitored programmes.

ADDITIONAL AUDIO AND VIDEO

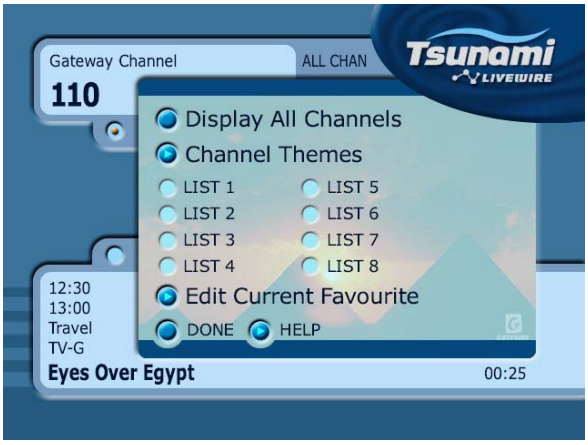
If an additional audio and/or video feed are available for the programme you are viewing, you will see icons for ADDITIONAL AUDIO and/or ADDITIONAL VIDEO on the left side of the screen. Activate the OPTIONS screen by pressing "**OK**" on your Remote Control. Then use the "**Arrow**" buttons on your Remote Control to navigate and select the available option. Select **"DONE"** onscreen to activate changes.

The changes will only affect your currently viewed programme, and will default back to normal once the programme is complete.

2.5 Using the Quick Favourites Menu

SELECTING A LIST OF FAVOURITE CHANNELS

You can create and edit up to eight lists of favourite channels. Press the **"FAV"** (Favourites) button on your Remote Control at any time to access the QUICK FAVOURITES MENU, which will pop up over the video with a transparent background. Use the arrow buttons to select which list of favourite channels you wish to activate. If you are activating a custom favourite list for the first time, you must select "Edit Current Favourite" onscreen to add up 30 channels to your list. Select **"DONE"** onscreen to confirm the selection. The FAVOURITES NAME at the top of the screen will update to reflect your selection.



From this screen, you can:

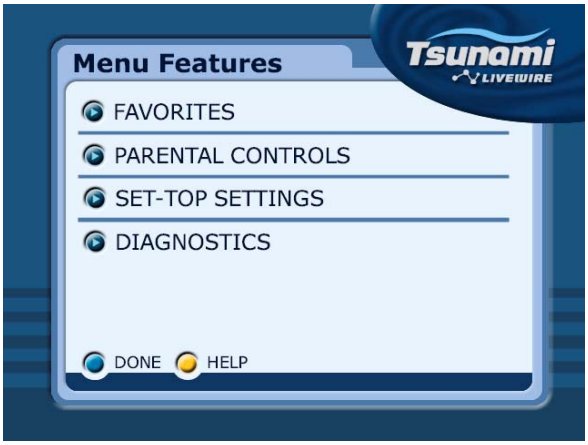
- **Display All Channels:**
  Quickly reset your current mode to include all available channels.
- **Select Channel Themes:** Choose among several different themes for browsing, such as Movies, Music, or Sports.
- **Edit Current Favourites:** Opens the EDIT FAVOURITE Menu Page, where you can edit the name and lineup of your favourite channel lists. (Section 3.1)

Note: If you are browsing in All Channels or Channel Themes and would like to edit your Favourite channels, your must first switch to Favourites mode. Press the "FAV" button on your Remote Control or access EDIT FAVOURITES through the Menu Features screen.

3 Menu Features

MAIN MENU

Access the Main Menu at any time by pressing the **"MENU"** button on the remote control.



MENU FEATURES

- Favourites
- Parental Controls
- Digital Set-Top Box Settings
- Diagnostics

3.1 Favourites/Themes

SELECT FAVOURITE LIST OR BROWSE BY THEME

- **Display All Channels:** Quickly reset your current mode to include all available channels.
- **Channel Themes:** Choose from a variety of different themes for browsing, such as Movies, Music, or Sports.
- **Edit Current Favourites:** Opens the EDIT FAVOURITE Menu Page, where you can change the name or channel lineup of any of your eight custom favourites list (Section 3.1).

CHANNEL THEMES

You can choose from a variety of different pre-set themes for browsing, such as Movies, Music, or Sports. Select **"DONE"** onscreen to confirm your selection.

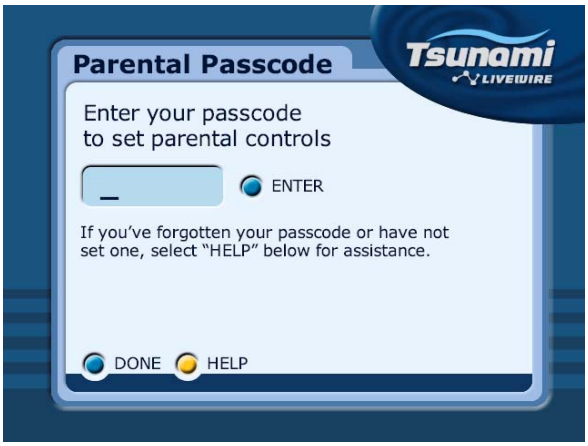
EDIT FAVOURITE

To change the name of a favourite list, select **“Edit Name”** onscreen. A cursor will then appear inside the TEXT WINDOW. Use the **“Up"** and **"Down Arrow"** buttons on your Remote Control to scroll through the alphabet. You can also include numbers 0-9 in the new name. When finished, press the **“Right Arrow”** on your Remote Control to exit the TEXT WINDOW and select **“DONE”** onscreen to save changes.

You can choose up to 30 channels for each custom favourite list. Scroll through the channel lineup using the **“More”** and **“Last”** buttons onscreen. Select **“DONE”** onscreen to confirm channel lineup choices.

3.3 Parental Controls

RESTRICT ACCESS TO PROGRAMMING BY CHANNEL OR PROGRAMME RATING

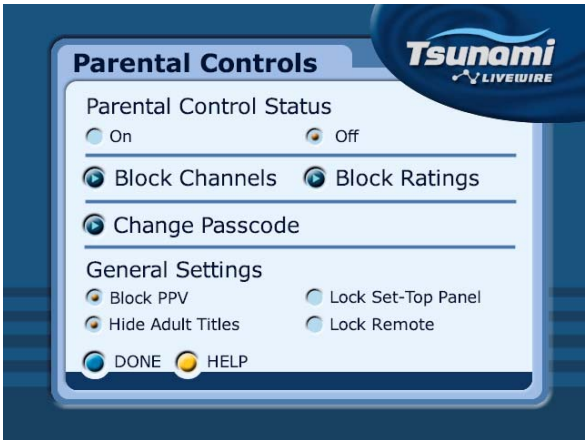


PARENTAL PASSCODE

To access the PARENTAL CONTROLS screen, enter your password using

numbers 0-9 on your Remote Control, then select **“ENTER”** onscreen.

Note: The first time you set the password, the numbers will appear in the TEXT WINDOW. The next time, the password will appear as asterisks.



PARENTAL CONTROLS

Parental Control Status: Turns parental controlled channels and rating blocks on or off.

Block Channels: Opens the CHANNEL BLOCK screen that lists all available channels. You can select any channel to be blocked from view.

Block Ratings: Opens the RATINGS BLOCK screen that lists all available programme ratings. You can specify that all programmes of any selected rating will be blocked from view.

Change Passcode: Opens a screen that allows you to set a new passcode.

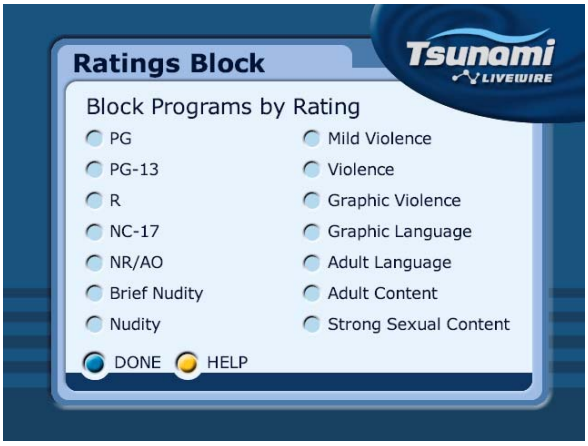
You may also wish to consider the following General Settings:

- **Block PPV:** Block all Pay-Per-View channels from being viewed.
- **Lock Set-Top Panel:** Lock the Digital Set-Top Box front panel buttons.

Select **“DONE”** onscreen to confirm Parental Control status and return to the MENU FEATURES screen.

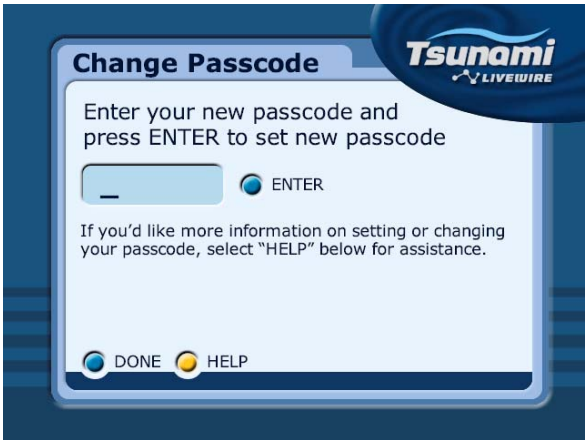
CHANNEL BLOCK

Scroll through the channel lineup and choose up to 30 channels to block from view. Select **"DONE"** onscreen to confirm blocked channels and return to the PARENTAL CONTROLS screen.



RATINGS BLOCK

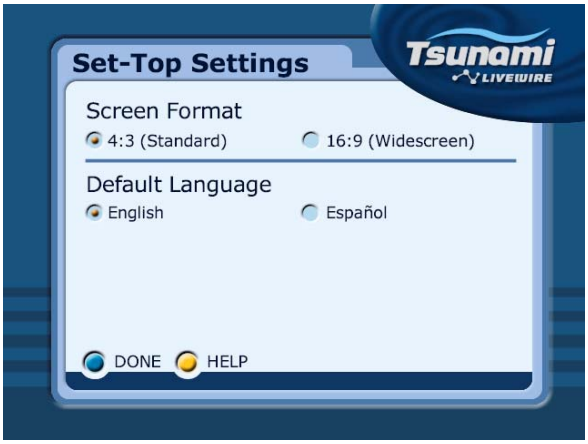
You can specify that all programmes of any selected rating will be blocked from view. Select the ratings of the programmes that you would like blocked. Select **"DONE"** onscreen to confirm blocked ratings and return to the PARENTAL CONTROLS screen.



CHANGE PASSCODE

Enter a new passcode using the numbers 0-9 on your Remote Control, then select **"ENTER"** onscreen.

3.4 Digital Set-Top Box Settings

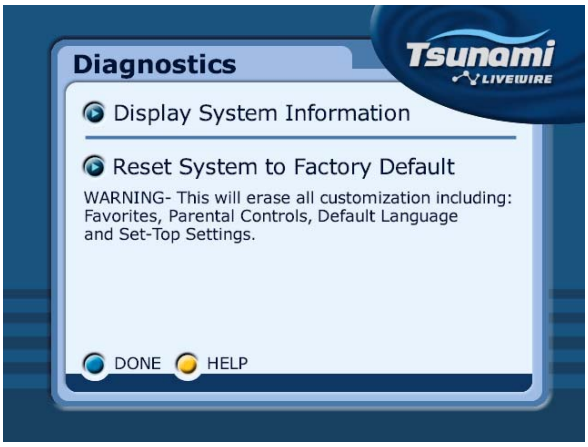


SCREEN SIZE AND LANGUAGE OPTIONS

SCREEN FORMAT: Indicate the size of your television screen, Standard Screen (4:3) or Widescreen (16:9).

DEFAULT LANGUAGE: Select the language that you would like to appear on all interactive TV screens.

3.5 Diagnostics



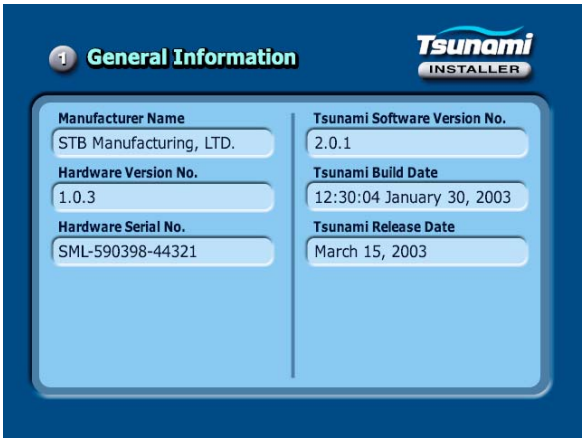
SYSTEM INFORMATION AND RESET OPTION

DISPLAY SYSTEM INFORMATION: Loads the TSUNAMI INSTALLER APPLICATION that is used to monitor and modify system settings.

RESET SYSTEM TO FACTORY DEFAULT: Select this button onscreen to open a passcode-protected reset screen, where you can reset all Favourite lists, channel and rating blocks, language preferences, and custom settings to their original factory-installed status.

WARNING: This will erase all customization including: Favourites, Parental Controls, Default language and Settings.

Select **"DONE"** onscreen to return to the MENU FEATURES screen.



DISPLAY SYSTEM INFORMATION

Page one of the TSUNAMI INSTALLER Application contains CONDITIONAL ACCESS (CA) and SMARTCARD STATUS information. This information will be useful if you contact customer support for assistance. You can scroll between

System Information pages by using the **“Left"** and **"Right Arrow”** buttons on your Remote Control.

Press **“DONE”** onscreen to return to the MENU FEATURES screen.

RESET SYSTEM

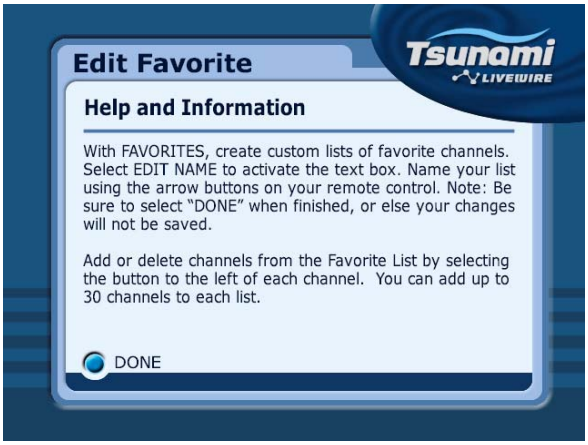
To reset your system, enter your password using numbers 0-9 on your Remote Control, then select **“RESET”** onscreen.

WARNING: This will erase all customization including: Favourites, Parental Controls, Default language and Settings.

Press **“CANCEL”** onscreen to return to the DIAGNOSTICS screen.

4 Trouble Shooting

4.1 Onscreen Help



ACCESS HELP AND INFORMATION FOR EACH MENU SCREEN

Each MENU SCREEN has a screen-specific help and information page. Access this page at by using the arrow buttons to select **“HELP”** located at the bottom of each Menu page onscreen.

Select **“DONE”** onscreen to exit HELP AND INFORMATION and return to the MENU SCREEN you came from.

Note: HELP AND INFORMATION screens are also available for PROGRAMME OPTIONS, QUICK FAVOURITES MENU and PAY-PER-VIEW ORDERING screen. Use the arrow buttons to select “HELP” located at the bottom of screen.

4.2 Message Screens

RECEIVE CHANNEL BLOCK AND TROUBLE- SHOOTING MESSAGES ONSCREEN

Your Digital Set-Top Box can diagnose most problems that may occur with the video and audio signal, as well as the status of the Smartcard that controls your access to programming.

Each MESSAGE SCREEN will provide a tip on what to do in case of trouble.

Also, channels or programmes that are BLOCKED or DELETED display a notification message.

MESSAGES you may receive onscreen include the following:

- Cable Signal Problem
- Smartcard Not Inserted
- Smartcard Not Paired
- Smartcard Never Paired
- Smartcard Com Error
- Smartcard Invalid
- Smartcard Expired
- Smartcard Suspended
- Smartcard Blacklisted
- Access Denied
- Channel Deleted
- Video Not Ready
- Audio Not Ready
- System Data Not Ready
- System Software Update Detected
- Parental Lock